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The Impact of Downsizing on the Profitability of German Corporations

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Table of Contents

List of Figures

List of Tables

List of Abbreviations

BetrVG	Betriebsverfassungsgesetz
Bn	Billion
COGS	Cost of gods sold
DAX	Deutscher Aktienindex
e.g.	Exempli gratia
FTE	Full time equivalent
GP	Gross profit
HR	Human resource
ICT	Information and communication technology
IPO	Initial public offering
KPI	Key performance indicators
KSchG	Kündigungsschutzgesetz
Mn	Million
N.d.	Not defined
M&A	Mergers and acquisitions
MNE	Multi-national corporation
NP	Net profit
NOPAT	Net operating profit after taxes
OPFC	Operating profit free cashflow
p.a.	Per annum
p.e.	Per employee
ROA	Return on asset
ROE	Return on equity
RiW	Reduction in workforce
ROCE	Return on capital employed
SGA	Selling, general and administrative expenses
UK	United Kingdom
US	United States
US $	US dollar
WpHG	Wertpapierhandelsgestz

1 Introduction

Corporate measurements and strategic decisions frequently rely on a forcefield of internal and external interests. Within this forcefield, management and boards are sometimes constrained to take drastic actions and find themselves in situation where it is necessary to reduce the overall amount of personnel employed. Among the many different labels of such reductions in workforce, downsizing is one of the more frequently applied and researched terms. In today´s competitive markets and globally spanning networks, *"[D]downsizing has turned into one of the inevitable out comes of living in a global world where continual adjustments to products, services, and the price of labor are needed to remain competitive"* (Kets de Vries & Balazs, 2014).

This competitive edge might be a key to future company success on a local and global scale for German companies. With shortening product cycles and rapidly changing technological requirements, companies need to adapt their strategies, organizational layout and workforce continuously. Since globalization fosters global competitiveness, the economy and its inherent players do share common up or downward trends and need to transform, secure, or restructure their business. In the aftermath of the crisis in 2000 and 2008, Germany and its players could prove their efficient mechanisms when it comes to the securitization of working places. During the recession in 2008, US unemployment jumped 10.1%, the largest peak in three decades, whereas German unemployment fell to 7.5%, towards a decade low and clearly below the 10.1% Eurozone average (Blackstone, 2010). Traditional downsizing oftentimes consists of large-scale layoff, which is a rather reduction-oriented strategy for cost-saving. This does hold lesser benefits in the German context, due to legal compensation and layoff requirements. Even though a liberalization towards more downsizing friendly regulation has been taken place since 2008, downsizing and its implications still vary from more employer-friendly jurisdictions such as the US, UK or China (Bhankaraully, 2018). This trend towards global adaptation is conjoining a more integrated financial accounting and reporting standard, supporting international efforts to facilitate higher transparency and comparability among a firm´s operation and trans-border cash flows (Vicente-Lorente & Suarez-Gonzalez, 2007).

If corporations are faced with the necessity to largely adapt and restructure their organization and portfolio, they usually do this under the aspect of profitability and efficiency. Since corporate profitability stands at the core of financial health, the right amount of workforce for the respective strategy is crucial (Gandolfi, 2013). Of similar

importance are the financial implications of the undertaken restructuring to shrink the amount of workforce employed and the associated overhead cost including pension obligations. Their compatible decrease is vital to free financial capacity and achieve the targeted transformation, when needed. Hence, the relation between corporate downsizing in Germany and financial performance is of greatest importance to academia and managerial decision makers in the country context (Datta et al., 2010).

2 Problem Definition

Organizational efficiency, restructuring, and downsizing are frequent business topics, related to economic efficiency. Besides, the reduction of workforce caused by technological improvements and the digitization of businesses might result in an over-capacity of human labor throughout whole industries (Popescu, Sabie, & Comanescu, 2016). In some instance, the new economy is driving workforce reduction trends since the internet crisis in 2000. These restructuring tendencies can result in a reduction of human personnel in personnel intensive industries, such as manufacturing or financial services. Corporations handle this within a forcefield of megatrends such as demographic changes, continuous education, and new work environment (Horx, 2017). Whilst almost all publicly traded companies oblige to financial measurements as their key index for corporate health, these performance indicators are of central importance for the management and shareholders. Therefore, to be competitive, corporations need to take the impact of financial shareholders into account, when failing strategic decisions. Consequently, financial profitability is one of the most important determents for the creation of financial value (Black, Wright, Bachman, & Davies, 1998). Before undergoing a restructuring and change in operational or strategic direction, management needs to develop a theoretical understanding about the impact of restructuring, and adapting workforce, on their respective financial outcomes (Toffler, 1984). This paper intends to establish a deeper understanding of downsizing as a strategic measurement, to establish a qualitative foundation for corporate decision making. Therefore, the key purpose of this paper is the question, “How downsizing as part of a strategy influences German corporation´s profitability”.

Even though an extensive body of academic literature on how organizational downsizing as a strategy for restructuring emerged and developed over time, a scarcity of academic work focuses on how downsizing influences individual corporate profitability and how the outcomes of downsizing measurements vary from industry to industry in a single

country (Brauer & Laamanen, 2014). This thesis complements existing research, to theorize around the relationship between organizational downsizing and firm performance of DAX members, by applying an organizational restructuring perspective in Germany.

This paper establishes a direction and general recommendation for the success of HR related downsizing measurements within certain economic settings. In contrast to most research, the legal framework of a singular country, an industry specific comparison of the process, and individual corporate results will play a major role in the development of academic statements. Results consist of the development of fundamental propositions, to allow further research to quantify and deepen evidence-driven research in the field of downsizing in Germany. Therefore, propositions for downsizing and its efficiency, measured by financial key data and externally perceived performance are established as findings in this paper to answer the following research questions:

i. How do German DAX members apply downsizing?

ii. How do DAX members perform in a three-year period after a downsizing?

iii. How do DAX downsizers perform within an inter-industry comparison in Germany?

The research approach departs from the widely used quantitative analysis to confirm the success of downsizing measurements based on financial econometrics through regression models. A case-based approach allows for an individual analysis and firm comparison, to support the development of propositions. Furthermore, this paper does not merely analyse the relationship between the size of downsizing activities and corporate performance. The overall aim is to analyse and create valid propositions for successful downsizings in a country-specific framework.

3 Course of Investigation

The following thesis consists of two parts, a literature review including chapters four and five, and an empirical analysis from chapter six to nine. The literature review establishes a theoretic foundation of the underlying topic to facilitate a gradual research in the empirical analysis. The research conceptualizes around two topics, separately handled inside the literature review but combined in the analysis part. This allows for suggested links in the research field of downsizing. Throughout the successive chapters of the thesis, propositions evolve from these links.

To begin with, chapter four introduces the premier part of the literature review. The term corporate restructuring is depicted and narrowed on the reduction of human assets, known

as organizational restructuring. This part consists of seven sections reviewing the relevant aspects of downsizing to restructure and commences with a traditional term description and definition. Before downsizing is introduced as a form of organizational restructuring, a section concludes an overview of different restructuring categories. The restructuring mode follows and links this section to the chapter´s core, downsizing as a strategy and tool for organizational restructuring. Here, downsizing and its historic development introduce the strategic aspects and specific implications of the strategy. The legal aspects of the strategy in its local context, Germany, follow this part to set a benchmark for the later analysis before the impact of downsizing on corporate performance, including relevant statistical measurements throughout prior studies, are examined. Chapter four serves overall to create clear connections between downsizing and profitability. It establishes a foundation for the later analysis of how downsizing impacts corporate profitability.

The second part of the literature reviews continues in chapter five with the analysis of profitability and ways to measure balance-sheet and income based KPIs. To establish a successful foundation for the latter case analysis, the following logic is applied: the first section reviews the concept of profitability, before current ways to measure profitability are introduced. We continue with financial measurements in downsizing studies and the introduction of frequent measurements for downsizing. Lastly, downsizing and economic settings, which are driving forces behind the result of downsizings, close the section.

Chapter six commences with the methodology on data collection and analysis. It highlights the undergone analysis, the limitations in the German downsizing landscape and introduce foundations for the later proposition development.

Subsequently, chapter seven introduces research findings on a case by case base. The resulting six cases are introduced and analysed first in an intra-industry and second in a inter-industry comparison. Subsequently, results of the inter-industry comparison are described and evaluated. Thereupon, five propositions, including three sub-propositions on the impact of downsizing on corporate profitability in Germany are derived in chapter eight. The propositions closely examine a potential generalizability of the established evaluation and allow a critical look on the impact of downsizing on DAX corporations. The undertaken analysis is then reflected in chapter nine, enabling a critical view of the obtained results derived from the underlying analysis, before the thesis is concluded in chapter 10.

4 Corporate Restructuring

Chapter four introduces the foundation of restructuring and downsizing as a means to restructure. To begin with, restructuring is analysed, including its various archetypes, before downsizing as a strategy is introduced. As downsizing and its financial implications on corporate profitability is the core of this study, downsizing approaches, strategies, and state-of-the-art research results create a comprehensive foundation for the latter case comparisons.

4.1 Term and Definition

Corporate restructuring refers to a change in a company´s structure, related to the economic business structure or business model of a company. In its nature, restructuring influences either geographic scope, business segmentation, or profit centres. Taking into account that organizations are legal entities, restructuring relates to the change in legal structures based on the respective company law, redefining, for example an organization´s legal entity or form, as well (Teichmann, 2015). Economically, corporate restructuring is a radical method, that allows coping with rapid market or product changes within or from outside the industry. Therefore, restructuring mainly relies on the economic necessity to preserve or regain corporate competitiveness (Enderwick, 1989).

Companies have two fundamental strategies from which to choose according to Markides (1995), when it comes to secure competitiveness: Refocus or diversify its business. Horne and Wachowicz´s (2013) definition broadly sub-summarizes corporate restructuring as "[A]any change in a company's capital structure, operations, or ownership that is outside its ordinary course of business" (Horne & Wachowicz, p. 697, 2013).

Corporate Restructuring combines a set of discrete measures, usually targeting the expanding competitiveness of an enterprise to increase corporate value or performance through a distinct set of measurements or activities (Crum & Goldberg, 1998). Often guided by a major change in a company´s organization or configuration, corporate restructuring leads the transformation of a company´s assets in combination with a shift in corporate strategy and successively conclude in changes of the corporate structure (Hoskisson & Turk, 1990). The success of these measurements relies on the interplay of internal and external factors supporting the restructuring activity. To create value internally, operations and financials such as sales and margin growth or reduction in working capital, also need to be fostered from the inside. External factors allow increasing the value of a restructuring by enhancing potential, arising through corporate divesture

(sell-off, mergers, acquisitions, alliances), that need external players to allow for successful value creation (Das & Basu, 2004).

4.2 Restructuring Classification

The described changes influence the way corporations structure their business, financials, operations, and governance (Gibbs, 1993). Changes occur mainly within the operational, investment, financing, or governance layout of a company, as these areas allow for greatest or fastest impact on assets and strategy. Successively, corporate restructuring activities can be classified into portfolio restructuring, financial restructuring and organizational restructuring (Bowman & Singh, 1993).

Portfolio restructuring combines the sell and purchase of wanted or unwanted assets and asset types, what might result in a mix of assets owned. This includes divestiture, liquidation, asset sale or spin-offs of businesses and operations. While spin-offs and sell-offs can result in gains for the restructuring company, acquisitions and divestments generate no improvements on average (Bowman et al., 1999), even though these results change possibly over time since they diverge from finding to finding (Baker and Kiymaz 2011). Overall, managers tend to either sharpen their corporate focus of action through a portfolio restructuring, raise the capital needed or reduce the impact of languishing operations by liquidizing divisions (Bowman & Singh, 1993).

Financial restructuring summarizes transformations of a company´s capital structure and tends to include structural changes in core and peripheral financial entities. These include leveraged buyouts, leveraged recapitalizations and debt for equity swaps (Horne & Wachowicz, 2013). Organizations financial structures primarily exist to facilitate corporate cash flows, funds, cash, or credit. The financial structure serves as the strategic and contractual decision, determining the value-added of various business entities and the flow of cash among them. The corporate financial structure combines the following elements: the scale of the investment base, the combination of active investments and reserves, the investment focus and choice of revenue sources, the reinvestment rate, the mix of equity and debt, the degree and cost of corporate overhead including the durability of compensation and benefit contracts as well as the allocation of expenditures amid contemporary and future revenue potential (Donaldson, 1994).

Lastly, organizational restructuring as a means to facilitate portfolio or financial restructuring, and sometimes described as a by-product of the former restructuring classes (Prechel, 1994). It allows managers to significantly alter the firm´s structure by reducing

diversification, streamlining processes, shrinking workforce and products, rebuilding divisions, and flattening hierarchies. Findings of Bowman et al. (1999) suggest that the pure usage of employee-related restructurings, without further activities, has a negative impact on corporate financial performance. Benefits in flexibility, communication, and overall financial improvement are reached if human-related restructuring is combined with further organizational, financial or portfolio restructuring (Bowman et al., 1999). Accordingly, executives need to deploy organizational restructuring in combination with financial or portfolio restructuring to be successful to reach the prime goals of corporate restructuring: reduce the cost base, increase productivity and improve performance (Bowman & Singh, 1993).

The outcomes of corporate restructurings may have positive or negative effects on a firm's financial performance. To decide if a restructuring process is successful analysts use sequences of intermediate effects. In terms of portfolio restructuring, these include greater control of remote entities, a higher strategic focus or greater economies of scale and scope. In case of financial restructurings, intermediary effects include greater emphasize on cashflow, working capital improvements and adapted managerial compensation. Rather different are the intermediary effects for organizational restructuring as they foster rather intangible measurements such as reduced turnover, greater corporate efficiency through higher employee satisfaction or improved communication (Bowman et al., 1999).

All the above mentioned short- to midterm effects influence corporate financial performance, thereby exhibit a longer lasting effect on corporate profitability. Since these effects are ultimately perceptible in a time horizon spanning one to five or even more years after the downsizing announcement, a pure focus on market performance to assess the success of restructuring activities is less comprehensive than a combination of market and accounting performance (Bowman et al., 1999).

4.3 Organizational Restructuring Modes

As stated, Bowman & Singh´s (1993, 1999) definition of the restructuring types, is still valid to date: portfolio, financial and organizational restructuring. These build the foundation for later restructuring procedures. Before categorizing the type of restructuring, it is necessary to understand if restructuring activities are constructed by the management or prescribed by external circumstances. Prescribed restructurings have multiple reasons varying from industry to industry. One example is the introduction of

disruptive technologies, pushing sales from offline to online, shrinking quantities of offline sales, and including margin erosions. Constructed divestures include abandoning core business, restructuring due to poor strategic fit of divisions, reverse synergies, poor performance, negatively influencing capital market factors and cash-flow needs (Baker & Kiymaz, 2011). Constructed and prescribed restructurings lead to certain activity modes, which arrive in various forms and depend on the internal and external corporate situation at the time of realization (Buth, Hermanns, & Bächstädt, 2014).

Depending on the chosen mode, varying measurements, activities, and resources enable a successful procedure for the management. Enderwick (1988) summarized the following six restructuring modes: intensification, investment and technical change, rationalization, deintegration, collaboration, and incremental internationalization. Each restructuring mode arrives with varying forms of restructuring: Intensification establishes increased productivity through contractual flexibility, flexible working practices, and concession bargaining. Labor process is continuously intensified without reorganizing the workforce and processes. Investment and technical change lead to new production methods such as automation or flexible manufacturing systems accompanied by a RiW (Reduction in Workforce). A strategy of rationalization involves the elimination of capacities divestment, changes in production lines or transfer of businesses also accompanied by possible reductions in labor. Deintegration as a mode leads to reduced levels of organizational integration by the outsourcing of operations previously undertaken internally. Autonomy within business units is widened by organizational changes like the introduction of mobile offices and intrapreneuring and accompanied by possible reductions in labor. Further modes do not include downsizing but display a stable or growing workforce: collaboration through partnerships and incremental internationalization by internationalizing and increasing overseas investment. These modes partly require an adaptation of workforce and therefore foster downsizing. Overall, modes tend to be mixed to realize a corporate goal through managerial action. Downsizing relates to half the strategies applied and a great number of restructuring activities.

These modes can occur in the overall organization or certain areas, while differentiating through different activities per area. Earle, Estrin, & Leshchenko (1996) identify the following activities per area:

Nr.	Strategic Area	Activity
1	Production	• Change: area of activity, product mix, inventory policy, product quality, technology, use of resources • Closing of plant or shop. • Dispose assets • Seek foreign consulting service • Place new investments.
2	Investment	• Reduce: future bank borrowing, outstanding receivables • Obtain new non-bank and bank loans • Lengthen period of payables • Reschedule loans & change bank connections • Seek foreign investors.
3	Employment	• Increase: Labor, wages, & wage differentials • Decrease: Labor, wages, & social benefits • Modify internal wage scheme.
4	Marketing	• Increase: Marketing effort, market reach, product price relative to competition • Drop product price below competition • Change distribution network & suppliers.

Table 1. Restructuring Activities in Atrategic Areas; Adapted from: Earle, Estrin, & Leshchenko (1996)

Even though organizational restructuring fosters reorganizations within the firm that does not necessarily involve activities, related to the sale or disposal of assets or parts of the portfolio, the intensity of these activities is of vital interest for financial observers.

4.4 Downsizing and Organizational Restructuring

Downsizing as part of organizational restructuring is categorized, likewise to restructuring, into proactive (constructed) and reactive (prescribed) and aims at a higher efficiency for corporations. Oftentimes, reactive employee downsizing is triggered by poor performance, grown costs or decline in demand within a negative market response, while proactive downsizing derives from expected future market needs and predicted adaptations to sustain a competitive advantage (Gunderson, Verma, & Verma 1997; Hillier et al., 2007). Corporate procedures will be downsized when keeping the

organization stagnant is less beneficial than the outcome of the restructuring and downsizing foregoing. This conclusion can be derived by comparing the net present values of cash flows from stagnation versus the ones expected from the cost savings (Elayan, Swales, Maris, & Scott, 1998).

Downsizing actions should cut costs inside the corporation and increase the efficiency, while keeping everything else constant and least erupted. Therefore, the overall goal is improved financial performance. However, positive financial outcomes and the true value of different downsizing strategies is of prominent controversial (Farrell & Mavondo, 2005). Most companies downsize to reach certain outcomes, usually reducing overall expenses (oftentimes related to overhead and SG&A), grow profits, reach higher cashflows, and improve productivity. The following table summarizes the most important outcomes assumed by decision makers:

The desired outcome	Percentage of firms achieved outcome
Reduced expenses	46%
Increased profits	32%
Improved cashflow	24%
Increased productivity	22%
Increased competitive advantage	19%
Reduced bureaucracy	17%
More efficient decision making	14%
Increased customer satisfaction	14%
Higher Sales	13%
Higher market share	12%
Improved product quality and innovation, technological advances, and takeover.	> 10%

Table 2. The Desired Outcome of Downsizing Programs; Adapted from Atwood, Coke, Cooper, & Loria (1995)

Taking these expected outcomes into consideration, Mirabal and DeYoung (2005) describe downsizing overall as a reactive strategy utilized to tackle one or more of the following situations: the transformation of the organizational structure, loss of market share and revenue caused by industrial or technological disruptions, or M&A. Reality shows that downsizing is usually the result of restructuring caused by decreasing prior earnings, lowering demand, and cost cuttings (Chen, Mehrotra, Sivakumar, & Yu, 2001).

4.5 Downsizing as a Tool for Strategic Restructuring

4.5.1 Historical Development of Downsizing

Corporations constantly safeguard profitability by measuring efficiency to deliver a better performance. Like efficiency programs, downsizings are frequently applied by managers, to enhance corporate profitability.

Sheaffer, Carmeli, Steiner-Revivo, and Zionit (2009) comprehensively state downsizing as a relevant management strategy. By selectively choosing to decrease workforce-related costs, corporations improve the short- and long-term cost base of the firm. Consequently, to decrease the cost base, downsizing can result from various combinations of restructuring activities. Nevertheless, varying strategic approaches utilize downsizing as a form of restructuring but not a particular restructuring strategy (Wilkinson, 2004).

Straightforward, it describes a reduction in size or simply a decrease in volume of personnell employeed. Downsizing is foremost a tool of the organizational restructuring process, targeting the reduction of sales by divesting disadvantageous and unprofitable product lines or the reduction of workforce in terms of establishing a more efficient and leaner pool of human resources. Consequently, a valid measurement for the downsizing activity is the change in sales per employee, that reflects the efficiency of the restructuring. Sales p.e. allow optimization in four ways: increase sales greater than employees, increase sales with stable or reducing workforce, decrease employees with stable or increasing sales and decrease employees greater than sales (Roll Buhner, Rasheed, & Rosenstein, 1997).

A controversy around the term is analysed by Mentzer (1996). Downsizing varies from a deliberate action to any RiW. While some researchers classify it as the sole action and purpose of reducing the number of employees, others label it as a term with a far greater influence than just a pure reduction of human resources.

One of the most comprehensive meaning for downsizing is offered by Dewitt (1998): used as a general description to execute cost-saving programs through one or more waves of layoffs. According to Dewitt, downsizing strategies are grouped into three subcategories: retrenchment, downscaling, and downscoping. Retrenchments facilitate the cutback in personnel staff while sustaining corporate scope and even increase output. Usually, retrenchment is facilitated through centralization and the merging or specification of operations. Product or line-specific costs can be enhanced by the relocation of resources and the productivity increased by specified and central operations. A downside might be the combination of troubling and efficient operations to have a

higher negative effect on the efficient operation. Downscaling allows for horizontal RiW, leading to a lower overall output while sustaining the scope and product lines. The approach is used to allow for an adaptation of output to the level of market demand. Negative effects are a reduction in the scope of product lines and a reduced a corporation's capability in meeting its competition. Subcategory three is downscoping, which flattens the vertical scope of the workforce. By reducing resources and operations, management is shrinking output and adapts to the market needs (Dewitt 1998).

As downscoping is labelled to be the most widespread form of downsizing, Dewitt (1998) summarized five approaches resulting from two vertical and three horizontal downscaling practices. Backward and forward deintegration reduce the vertical scope of the firm, while customer downscaling, market withdrawal and line pruning decrease the horizontal scope. Forward deintegration reduces resources in the production, distribution and retail stream top-down. Backward deintegration reduces the company´s input into the production process. To cut the horizontal scope, customer downscaling allows unprofitable business relationships to be cut and physical as well as human resources to be decreased. Line pruning, originally introduced by Kotler (1965), is another approach to horizontally downsize and defines the sale or elimination of manufacturing and distribution rights, enabled by workforce reductions. Market withdrawal, a term developed by Porter (1976), leads to a reduction in the scope and scale of the firm as it impacts whole markets and countries.

By categorizing downsizing into revenue refocusing, cost cutting and plant closure, Charlos and Chen (2002) apply a more practical approach to Dewitt´s definition. They analyse the meaning of the terms within a business environment, spotlighting the direct actions taken to realize downsizing through workforce reduction. These categories are applied and display the final stage of the reduction of human resources within the scope of a restructuring program.

The reason downsizing is applied, range from lower overheads and the connected cost base to faster decision making. An improved productivity, smoother corporate communication, and execution, rising intrapreneurial behavior or greater corporate earnings are further drivers. It can be followed, that the major reasons behind downsizing activities is to enhance corporate efficiency and accordingly gain a competitive advantage (Kets de Vries & Balazs, 2014).

Even though the positive effects seem daunting, restructuring may be prescribed, what makes it almost impossible to realize the advantageous effects. In some cases, downsizing

is inevitable to secure the survival of a firm by providing necessary cash-flows. Layoffs as part of downsizing applied by corporations to avoid bankruptcy or severe cash shortage closely follow business cycles (Farber & Hallock, 2008). This phenomenon has been observed since the 1970s and did not change fundamentally over the past four decades, lastly seen in 2008 when the mortgage crisis hit the world economy (Sheaffer et al., 2009). Furthermore, Chalos and Chen (2002) conclude that the most relevant reasons behind downsizing are revenue refocusing, plant closure and the reduction of organizational slack. Their sample of Fortune 500 companies analysed between 1993 till 1995 proves that the largest part of downsizing announcements was due to revenue refocusing (37%), followed by retrenchment (35%), plant closure (21%) and a smaller portion derived from M&As (3%).

Chalos and Chen (2002) deduct that companies reducing personnel generally have an increased long-term debt per asset, or debt solvency, which could lead to future downsizings. Corporations need to increase profitability and foster their balance sheet to meet competition. A study by De Meuse et al. (1994) shows that profitability between downsizing and non-downsizing companies strongly differs, as downsizers clearly show lower profitability. In terms of RiW Casico, Young and Morris (1997) examined 3.628 companies from the U.S. over a 15 year period from 1980 till 1994 to find out that 59% percent downsized five percent at least once. They distinguish companies that restructure less than five percent between five percent and 15% and above 15% to find out, that one in three cases was corporations downsizing more than 15%. Corporations struggling with profitability were most likely to downsize above five percent and vice versa for high profitability corporations. Industry-wise, manufacturing firms were most likely to downsize more than five percent, succeeded by retail and service corporations. These three amounts for 57% of all U.S. downsizings above five percent between 1980 and 1994. Substantial downsizing does rely on the percentage of workforce reduction, but varies in different U.S. studies: While Chen et al. (2001) state a median workforce reduction of 4.55% with an average size of 8.94% from 1990 till 1995, Elayan et al. (1998) stress that the size of layoffs in Wall Street announcements, between 1979 till 1991, stagnates largely between four and 6.8%. Further studies support Chen´s and Elayan´s findings: Love and Nohira (2005) calculate means of 7.1% in the year of the downsizing announcement and four and a half peprcent in the year after the announcement. These statistically significant reductions in personnel are summarized by

Casico et al. (1997), labelling substantial downsizing as a reduction between five and 15% in the workforce. A comparable table of studies is to be found in Appendix 1.4.

Besides downsizing, further management practices have developed over time. One example is Rightsizing, a term that originated from downsizing, and found solid recognition among researchers. The term differentiates from downsizing in that it is an integrated part of the organization, its structure, process, products, and people. Rightsizing is based on permanent process analysis, a common understanding of the firm´s mission, and shared vision. The terms different in that downsizing refers to a single action while rightsizing combines multiple actions within an ongoing process (Hitt, Keats, Harback, & Nixon, 1994). Nevertheless, rightsizing is achieved through either workforce reductions, or asset reductions, or both. This results typically in decreased costs or increased earnings through margin improvements and greater competitiveness through increased flexibility (Cascio et al., 1997).

4.5.2 The Strategic Background

Downsizing has been most researched in the U.S., where it became relevant in the 1970s due to large-scale layoffs. At the end of a predictable long-term growth period, the topic aroused academic interest, as U.S. competitivity was challenged by aspiring economies. Management paradigms resulting from the overwhelming economic situation including long-term growth and predictable economic growth were challenged by restructuring, plant closure, downsizing and mass layoffs (Handel, 2005).

Farber & Hallock (2008) took a close look at lay-off announcements and found out, that these closely follow business cycles. Lay-offs derived from restructuring, downsizing or plant closure are characterized as a reaction strategy to unfavorable market conditions and allow for rapid impact on business performance. The interdependency between business cycles and reactive downsizing has been observed as long as the 1970s, wherefore downsizing is an accepted and dominant business strategy.

Even though downsizing started as a reactive strategy to economic cycles, the strategy gained acceptance as a proactive approach to steer the business in economically booming times. Especially companies which were in an economically challenging position adopted downsizing as a strategic approach to proactively manage times of crisis (Handel, 2005; Gandolfi & Littler, 2012).

Besides the move from reactive to proactive Gandolfi & Littler (2012) categorize the development of downsizing into three different historical phases. From the mid-1970s to

mid-1980s, from mid-1980s to early 2000s and early 2000s till present. Three levels characterize each phase, namely: level of practice, level of discourse and level of strategy. The first, level of practice describes the effects on inputs such as job cuts, plant closures or outsourcing. This phase is characterized by plant closure and small to medium layoffs, which were permanent or non-permanent. The first wave of downsizing to mid 1980s affected mostly blue-collar workforce and lower white-collar workers. The terminology downsizing was solemnly used in academic research and business communication. Main reasons for downsizing were reactions on the effects of the recession and corporate bankruptcy. Downsizing was not foreseen as a measurement, thus, no part of strategic plans (Gandolfi & Littler, 2012).

The second, level of disclosure, examines management rhetoric's, analysing the language of downsizing. It appeared from the mid-1980s to early 2000s was a period of plant closures, mass layoffs and outsourcing. Job cuts were focused on lower and middle white-collar workers to generate leaner, and meaner organizational structures, resulting in competitive advantages. Large corporations applied massive downsizing e.g., GM´s 74.000 layoffs or IBM´s 85.000 employee reduction. Based on research and experience, companies applied downsizing more strategically, especially among the ones at the lower end of the profitability span. Through a more common use, the terminology developed, and corporations were keener on publicly announcing the measurement in order to achieve a significant effect on Wall Street, pushing their stock price. Managers enforcing downsizing showed strength and were appreciated by Wall Street. Downsizing was applied more heavily as a proactive HR strategy, proving managerial effectiveness and foresight (Gandolfi & Littler, 2012).

Lastly, the level of strategizing examines the effects on capital markets fostered by the announcement. In this phase of downsizing from the early 2000s to present, layoffs became smaller by number, compared to previous phases. Downsizing as a restructuring measurement is numerically supported by additional restructuring activities. The number and variation of inputs increased by mixing plant closure, layoff, outsourcing, the usage of contingent labor and effects caused by natural attrition. The rhetoric usage of the term was closer to the first phase from the mid-1970s to mid-1980s, but still more enthusiastically than in both periods before. The impact of downsizing announcements on Wall Street shrunk, what led to a creative upgrade of the term. Rightsizing, resizing, streamlining or personnel restructuring gained in number to replicate the positive effects

on Wall Street previously accomplished by downsizing, while levels of disclosure rose (Gandolfi & Littler, 2012).

Downsizing developed from a pure reactive application to a strategy of choice for many companies. Over the historic adaptation of the term, its effects, and the profound understanding as a valid business strategy, Mirabal & DeYoung (2005) state that it developed to a selected strategy for corporations around the world in the mid-1990s. Today, corporations favor the strategy, not in terms of its strategic value for stock markets, but as an adaptive and anticipatory strategy used to proactively steer business (Gandolfi & Littler, 2012).

4.6 Strategic Implementation of Downsizing

According to Appelbaum & Donia (2006), the ultimate goal of downsizing is to achieve, maintain or even increase corporate productivity and thus gain a competitive advantage. Over the last four decades, downsizing as a strategy developed constantly. While the strategy´s application varies, the fundamental reasons to implement and apply are consistent. Downsizing as a strategy is a distinct reaction to one or more of the following situations: loss of market share or revenues due to industrial or technological changes, industry consolidation is driven by M&A activity, adapting organizational structures and the common belief that leaner is better (Mirabal & DeYoung, 2005).

Nevertheless, downsizing should not serve as a short-term strategy used to boost profits and cut current costs. Management needs to ensure, that downsizing actions are introduced on a profound basis and backed-up with the right justification. The strategic alignment needs to be well-thought-out, effective and integrated into an overall strategy. This indicates that downsizing on its own should not be a strategy´s core but rather a tool of a corporate strategy (Appelbaum & Donia, 2006).

4.6.1 Gandolfi´s Downsizing Archetypes

Dewitt´s three downsizing approaches (1998) were introduced in the previous chapter. All combine cost cuts in human resources, a decrease in the number of organizational layers and the plant setup. Gandolfi (2013) confirms the three approaches including interdependencies and differences. Additionally, Gandolfi (2013) gives a profound differentiation between two archetypes and implementation strategies. He categorizes the two archetypes into reinforcement (convergence) and reorientation, both widely used and acknowledged in business (Mirabal & DeYoung, 2005). Before choosing one of the two types, companies need to analyse if their internal operations fit their business model. If

there is a strategic fit between these, companies need to find out, if their business operation fit the external requirements to sustain competitiveness (Appelbaum, Everard, & Loretta, 1999). This defines which model a company should choose to succeed its downsizing activities (Gandolfi, 2013). The first downsizing archetype reinforcement (convergence) allows for moderate changes in organizations, achieved on a lower level of change compared to the reorientation approach. Different from the reorientation approach, the reinforcement approach targets change in the company´s mission, strategy, and structure. Even though occurring on a smaller stage, layoffs and RiW are a central part of the reinforcement model (Freeman & Cameron 1993; Gandolfi 2013).

Reinforcement fosters a less radical approach to changes in work rather than structure, to increase the stability of systems, technology, and management. Consequently, this downsizing process is ahead of the organizational redesigning, targeting higher efficiency and emphasizing business model and operational efficiency (Gandolfi, 2013). Even though the approach successfully reduces costs, the effectiveness of this model is unclear, as overall layoffs lead to uncertainty among the workforce causing potential loss of human capital over the process (Cameron, 1994).

Reorientation is a more radical but non-continuous type. It fosters changes in structure before changes in work driving change in systems, technology, and management. The model excludes RiW through layoffs and specifies on finding new operational processes and business opportunities. Compared to reinforcement, the strategy sets restructuring and redesigning ahead of downsizing to realize new operational and business efficiency (Gandolfi, 2013). Both approaches are compared transparent in Table 1 Appendix 1.1.

4.6.2 Downsizing Implementation Strategies

Gandolfi (2013), Mirabal and DeYoung (2005), and Cameron (1994) distinguish three implementation strategies: pure workforce reduction, organizational adjustment, and systemic strategy:

	Workforce reduction strategy	Organizational adjustment strategy	Systemic strategy
Focus	Workers	Jobs & units	Culture
Target	People	Work	Process Status Quo
Implementation strategy	Quick	Moderate	Extended

Temporal target	Short-term payoff	Moderate-term payoff	Long-term payoff
Restriction	Long-term adaptability	Quick payback	Short-term cost savings
Examples	Layoffs, hiring freezes, early retirements, or retrenchments	Abolishing functions or units, redesigning jobs, re-layering the organization or change working schemes	Process simplification, bottom-up changes, continuous improvements, and high staff involvement

Table 3. Characteristics of Implementation Strategies, Adapted from Gandolfi (2013)

Workforce reduction targets the number of people and can be implemented quite fast through overhead and FTE (full time equivalent) forecast. It pays off rather shortly and hinders long-term adaptation through layoffs, a hiring freezes, early retirements, or retrenchments. The organizational redesign focuses on jobs and business units, targeting work itself and takes medium long to be implemented. Corporations following an organizational redesign strategy, endure until the implementation pays off, when abolishing functions, or whole units, redesigning jobs, re-layering the organization or change working schemes. The systemic strategy is the last and is focused on corporate culture, targeting the status quo process and takes the longest to be implemented. The strategy targets a long-term change, that does not include short-term cost savings. Usually, the strategy is implemented through process simplification, bottom-up changes, continuous improvements and high staff involvement (Gandolfi, 2013).

Workforce reduction directly targets a reduction in the number of employees through layoffs, cutbacks, natural fluctuation, and hiring freeze. Measurements are initiated reactive to improve profitability and corporate efficiency in the short-run. The implementation fosters a cut in the cost base through instant reductions in human-related costs (Gandolfi, 2013). Farrell and Mavondo (2005) doubt the success of the strategy, as rapid cost cutting on workforce basis usually has negative long-term effects on corporate profitability, efficiency, and overall perception of the organization as a strategic actor.

The second implementation strategy, organizational redesign, reduces the amount of work instead of the size of the workforce. Redesigning departments and jobs, merging and reducing units instead of cutting these takes more time to implement. Therefore, the

implementation strategy does not lead to short-term cost-cutting but rather moderate-term payoffs and long-term profitability improvements. In other words, organizational and financial efficiency develops over time (Gandolfi, 2013).

Systemic change clearly differs from workforce reduction and organizational redesign. This implementation strategy changes organizational attitudes and values, triggering an overall organizational change (Luthans & Sommer, 1999). The systemic strategy allows for a more holistic view on the restructuring and enables the organization to widely adapt to the restructuring as an organizational change, limiting employee uncertainty and the negative influence on human capital (Gandolfi, 2013).

Cameron, Freeman & Mishra (1991) describe the relation between the depth and the width of downsizing and implementation strategy as follows: a strategy is deeper the more actions are related to one implementation strategy, while a strategy is wider the less related downsizing activities it includes.

4.6.3 Contemporary Downsizing Strategies

Academia broadly distinguishes between the above-mentioned downsizing strategies to categorize the term according to a pool of research data and findings. Contemporary downsizing strategies partly vary from the previously described ones: non-selective layoffs and stealth layoffs. Both combine large-scale human resource reductions, becoming exceedingly popular over the last decade (Gandolfi & Littler, 2012).

Large stealth layoffs are business as usual for some companies allowing them a RiW under the radar. Many companies such as IBM, Google or Hewlett-Packard follow this approach and successively lay of personnel discretely and undiscussed over a certain period. Fear about public disgrace, demotivated workers and the effects of the survivor syndrome steer corporate decision making to reduce workforce over an unconscious and stretched process (Gandolfi & Littler, 2012).

The second kind, non-selective layoffs executing large-scale employee reduction gained importance shortly after the subprime crisis hit world economies through weakened financial markets (Gandolfi & Littler, 2012). The downsizing might result from an imbalanced cost base, compared to the individual revenue stream, that many force well-known corporations to cut labor in rations of up to 25%. Rio Tinto, Johnson & Johnson,

and Pfizer are well-discussed examples of companies that were hit hard by the credit squeeze in time of the financial crisis (Hashim & Bakar, 2003).[1]

Cameroon (1994) studied downsizing and successive measurements within the U.S Automotive Industry between 1987 and 1990 according to their success. His findings state that key determinants of successful downsizing, still valid today in various industries. She concluded certain supporting factors, enabling organizational improvements: prior systemic analysis, incremental implications, transparent and continuous communication, all-level participation and engagement and a reduction in barriers leading to a higher effort within the workforce. Factors that impair the downsizing are the attrition of employees, work consolidation and increase in requirements without positive appraisal and compensation adjustment, as well as missing quality improvements. These findings extensively overlap with Gandolfi´s (2013) six tactics included in his strategy´s and archetypes, leading to a clear path of successful downsizing.

4.6.4 Differentiation Between Active and Passive Workforce Restructuring

When evaluating the necessity to downsize, based on human resources as cost drivers, economic and social effects need be considered. Therefore, strategic alignment of corporate and HR strategy need to adopt approaches and tools to allow for adaptable employee numbers (Buhner, Rasheed, & Rosenstein, 1997). These approaches are divided into active and passive, where active defines the active termination of working contracts, while passive stands for passive determination of working contracts. For active measurements, a division between one-sided singular decision of the corporation, and two-sided reached through employee and employer negotiation needs to be drawn. The following table shows the full scope of measurements:

[1] The economic downturn led many banks to force credit pay-back, leaving corporations with desiccative credit financing in times of the downturn. This resulted in financial bottlenecks, making reductions in the fixed cost-base inevitable. Even though the measurement seems harsh, it is on the action list for many corporations in terms of securing financial survival when facing bankruptcy (Gandolfi & Littler, 2012).

Measurement / Side	Activ Measurement	Passive Measurement
One-sided	• enforced redundancy • temporary layoff • cancellation of labor leasing/timework • contract termination • non-takeover of trainees	• hiring freeze • natural fluctuation
Two-sided	• agreement to revoke working contracts • collective agreement on early retirement • partial retirement • part-time work • dismissal with the option of altered conditions of employment	

Figure 1. Active vs Passive Downsizing Measurements; Adapted from Marr & Steiner (2003)

A different perspective allows the dichotomy into the dimensions of social (weak) and economic (hard) efficiency impact. A hiring freeze combined with natural fluctuation is allocated to purely weak impact since no existing contracts need termination. This combination shows a far less negative impact on the image and does not need any agreement from unions or governmental side. Viewed from the hard perspective, these measurements do lack in forecasting certainty and might lead to negative employee selection whilst no new talent is included in the organization. On the active side, only partial retirement and part-time work do have weak impacts since no direct layoffs need to occur. Whereas all other active measurements go hand in hand with contract termination and union cooperation (Marr & Steiner, 2003).

4.6.5 Downsizing Regulations and corporate adaptation in Germany

Downsizing is greatly affected by multiple forms of protection and the social perception of lay-offs in a country. German mentality and its legal systems do support corporate downsizing, to a lower extend when comparing the multitude of job securing regulations, than in the US or China (Gerlach, Levine, Stephan, & Struck, 2006). Besides having contemporary almost full employment on a national scale, German corporations downsize roughly every third work day on average 800 employees (Friebel & Heinz, 2014).

Germany represents a rather employee-friendly environment in terms of RiW, compared to other western countries with a comparable industrial stance. The employee-friendliness is visible, comparing w the payment of compensation for job loss according to seniority. Employee protection is enabled by the governmental degree of market orientation and

drives labor protectionism in Germany. The German labor market is perceived as a fair marketplace, conceding comparatively greater rights to employees and their long-term employment than improved corporate profitability, for instance, the US, UK or China (Gerlach et al., 2006).

The legal aspects of corporate downsizing in Germany are combined in a triangulation between three major actors: the corporation, the work council, and the unions. This constellation varies from other countries and rather prolongs the downsizing process. The beginning of the layoff process itself takes between a minimum of two weeks up to seven months and distinguishes between single individual and enforced redundancy. A layoff is considered a downsizing according to Kündigungsschutzgesetz (KSchG) § 17 (1) 3 f., if at least 30 out of 500 employees, or six percent, are dismissed. This has to be combined with complete hearings of the works council, to derive with a legally binding allowance to downsize, also in a situation that might lead to bankruptcy, all parties have to agree on the RiW (Kündigungsschutzgesetz §17.(1), 2004).

The foundation of the participatory process is the establishment of a social compensation plan, fostering equal opportunity layoffs, severance payments, and redeployment. In terms of mass layoffs bound to a social compensation plan, corporations must consider the duration of employment, the age of employees, necessary obligations, and maintenance payments linked to redeployment. These legal requirements are slowing down the process and locking-up financial and managerial resources (Gerlach et al., 2006). To give a rough estimation of severance compensation the US, Canada and Germany are compared: while Germany requires a compensation of two weeks salary for every full year of employment with the company, the Canadian legal code provides a one-week salary for every full year of employment, whereas the US code does not have any additional compensation in terms of layoffs or HR related downsizings (OECD, 2013).

Downsizing is generally perceived as unfair among the workforce and society. Downsizers must deal with a negative impact on the brand image by customers. Additionally, the employer brand decreases as employees and potential employees perceive the corporate situation as difficult. News about corporate downsizing adds another degree of downsizing reality to the overall strategy. Media coverage tends to be negative supporting the affected employee side of the downsizing (Heinz & Zubanov, 2016).

Due to the number of legal requirements in the German context, the duration of the process, and the scope of compensation payments and brand devaluation, downsizing is

not considered to be as much of a management tool as in North America. The operational and financial implications are estimated to be more long-lasting and less rapid. As previously mentioned, downsizing frequently occurs in Germany, however, corporations must deal with similar developments and risks as in other economic jurisdictions. Nevertheless, the approach differs from original, rather rapid, downsizing. Comparability of German downsizing in the European and international context is limited (Gerlach et al., 2006). Consequently, legal circumstances would support rightsizing over downsizing as a restructuring tool in the German context.

Therefore, downsizing in this context is characterized by the presence of institutional arrangements that complicate the introduction and effectiveness of unilaterally downsizing strategies, thus prioritizing the preferences of financial stakeholders (Bhankaraully, 2018). The extensive body of legal rights supporting the works council and their increased involvement in firm-level agreements or pacts militate against short-term adjustment strategies based on the rapid and substantial reductions in the number of employees. This potentially perceived legal imbalance has a deep impact on the ability of corporate executives to implement defensive takeover measures in German corporations or subsidies (Gumbrell, McCormick and Hyman, 2006; Hassel, 2014; Muller-Jentsch, 2003). Yet, corporations have a certain leverage, associated with corporate restructuring. Even in not-to-liberal market economies, such as Germany, servicing high levels of debt could lead to financial constraints and a loss of control to creditors or straightforward, bankruptcy (Atanassov and Kim, 2009). Operational and legal, high indebtedness generates strong incentives for corporate executives to confront employees to extract concessions. Simultaneously, employees, fearing partial company closure, relocation of activities or the reduction of activities within the company, are more likely to meet some of the downsizing related requests of the management (Schneper and Guillen, 2004).

Consequently, the employee-friendly legal regulations in Germany reduce the impact of downsizing strategies, approaches, and tactics since certain steps and requirements must be undertaken successively and are legally binding. Downsizing is directly connected to restructuring and is seen as a valid method, that will be accepted if a certain catalogue of previous possibilities has been checked (KschG §17 f., 2004). These include a temporary reduction in working hours (Kurzarbeitszeit), unpaid leave for the workforce and executive employees, or a temporary reduction in salaries or cancellation of performance-related compensation (Marr & Steiner, 2003).

4.6.6 The Effects of Downsizing on Corporate Profitability

Even though improving the financial situation of a company is the number one reason and fundamental idea of downsizing, the measurable effects on corporate profitability from post-announcements differ in various studies. An in-depth analysis of prior studies can be found in Appendix 1.2. Some studies show financial and non-financial positive post-announcements effects: Elayan et al. (1998) highlight a 2% increase in ROE; Casico, Morris and Young (1999) asses a two percent increase in ROA; Chen at al. (2001) found an increase in median ROAs and operating margins; Chalos & Chen (2002) find positive adjusted OPFC, sales and ROA developments. Others like Love & Nohira (2005) or Munoz-Bullón & Sánchez-Bueno (2008) find no notable effect on profitability (ROA, ROS) at all. A significant negative effect of downsizing measurements post announcement is found by De Meuse in two consecutive long-term studies: De Meuse et al. (1994) and De Meuse et al. (2004). Another critical view lies in Mentzer´s (1996) study, where he finds no stable relationship between the numerical size of the downsizing and future profitability. In his study among Canadian companies (1986 – 1994), no statistically significant effects can be proven. By this, he questions the fundamental idea of why corporations undergo a downsizing.

Historically, only 40% of downsizing corporations reach their target and reduce expenses and a solid 60% of corporations are not able to increase earnings post announcement (Estok, 1996). Similar effects are delivered by Cascio (1993), in a study on US MNCs, showing that not even half (46%) of the analysed companies were able to cut costs as much as previously expected while for one-third of companies profits increased post announcement. Even though financial performance and revenue development show mixed results, the selected downsizing strategy is the most important factor concerning its outcome, commonly agreed on. There are three downsizing categories, as mentioned in section 4.5.1: revenue refocusing, cost cutting and plant closures (Dewitt, 1998).
Findings from Casico et al., (1997) highlight that the average downsizers do not deliver better financial performance post announcement. Nevertheless, asset downsizers do outperform stable employers and financial employment downsizers. Similar developments are supported by Chalos and Chen (2002), analysing the impact of each downsizing strategy on the financial performance. By using median adjusted data, they draw the following conclusions: firstly, downsizing companies deliver above-average financial performance (ROA) compared to the industry. Secondly, closing and cost

cutting strategies are less efficient than revenue refocusing, compared by OPFC. Thirdly, simple cost cutting is therefore outperformed by efficiency strategies, delivering higher financial performance.

According to Love & Nohira (2005), the relation of absorbed slack (corporate savings for loss incurring situations and accruals) and financial post-announcement performance is positively linked. This is rather obvious since especially in revenue refocusing and cost cutting incur costs before improved results are to be expected. A study conducted about the different outcomes of pro- and reactive downsizing strategies shows the influence of both strategies on the financial performance and absolute absorbed organizational slack. Love & Nohira (2005) refer to absorbed slack as the ratio of administrative expenses (SG&A) to sales. Their study shows a significant positive correlation between proactive downsizing, absorbed slack, and financial performance before the implementation of the downsizing. Therefore, proactive strategies are acknowledged to be more efficient and companies holding a larger amount of organizational slack. Another factor is the width and depths of downsizing actions. Cameron et al., (1991) argues that the more actions favoring the same implementation strategy included in the downsizing, the better the results and higher the financial impact. This view is supported by the fact that organizational actions tend to have a higher depth than width (Cameron, 1994).

The size of the downsizing measurement does not have a significant effect on the period following the downsizing announcement. Even though the relationship between the magnitude of layoffs and future financial performance is significantly insufficient, corporations downsizing less than three percent of their workforce show better performance than companies laying off more. Similar outcomes are found by comparing companies laying off less and more than 10% of their employees (De Meuse et al., 2004). A significant negative effect of downsizing more than five percent of the workforce is found by Casico et al., (1997) in their study on the overall SNP500 on all HR related downsizings. A significance threshold is defined for five percent and 15% of RiW over the period of one business year, to distinguish between downsizing and substantial downsizing.

Therefore, the following classification might be drawn from existing academic research: downsizings with less than 10% outperform downsizings with more than 10%, and downsizings in between five to 15% outperform reductions above 15%. Thereupon, a logical conjecture would translate into, the lower the downsizing quantitatively, the better profitability will develop.

Thus, RiW occurs in wide arrays depending on the study and the sample, even though the size of the downsizing and its consistency over a certain period vary. While Love & Nohira´s (2005) sample results in a median downsizing of 7.1% in the year of the downsizing, only 4.5% are reduced the year after the announcement. Comparable US surveys show roughly similar reductions between 4.05% (Elayan et al., 1998) and 6.93% (Chen et al., 2001) over a two year period. The consistency of volume seems to be another factor that defines the outcome of the downsizing (De Meuse et al., 2004).

5 Downsizing and Corporate Profitability

Section five analyses the concept of firm performance by identifying and measuring corporate profitability. Therefore, financial KPIs are introduced to draw conclusions about corporate profitability. The impact of downsizing on firm performance, based on prior academic research is analysed, while measurements for individual firm performance are validated and selected. Successively, a list of profitability KPIs, to analyse the financial position of a downsizing company, is developed in the last part of this section.

5.1 Corporate Profitability

To define profitability, we look at the basic component, profit, first. “Profit”, defines a valuable return in the greater sense, usually “the excess of returns over expenditure in a transaction or series of transactions; especially: the excess of the selling price of goods over their cost” (Merriam-Webster, 2017).

Corporate profits are synonymy used with retained earnings and serve as a market indicator as well as a measurement of financial business performance. When seen as a market indicator, the US Bureau of Economic Analysis (2017) defines profits a statistical metric, measuring the net income of publicly listed companies. This yields in National Income and Product Accounts (NIPA) of any given country by including after-tax profits, profits from current activities, and book-based profits. When seen as a measurement of corporate business performance, profits account for the total income before tax deductions minus the implied cost to reach these profits (US Bureau of Economic Analysis, 2017). This allows setting profit equal to retained earnings of an organization after tax deduction.

In terms of financial analysis, profits are used to measure the rate of return (ROR) in investments and help to analyse the relationship between earnings, assets, and equity valuation of a company (Bureau of Economic Analysis, 2017).

Thus, profitability is calculated either as income-based or cashflow-based. The income-based perspective divides profitability into two classes, first profits in relation to capital invested (return on assets), and second interest deducted profits in relation to a company´s invested equity (return on equity). The cashflow or accounting perspective is more diversified and clustered into four kinds of profitability. Firstly, return on assets within the periodic inflow of payments based on the sum of all equity, including debt, and assets. Secondly, the return on equity in a consecutive period, focusing on the generated return over equity invested and measured in interest gained. Thirdly, a company´s profit ratio, relating gained profits to necessary capital for business operations, not taking extraordinary expenses and deductions into account. And fourth, the net profit ratio, which divides periodic after-tax profits by their respective net sales (Breuer, 2013).

Successively, profitability describes the ability to make a profit. It derives from all business activities of an organization and its entities, measuring how efficiently profit can be generated by including all available resources in the market. Thus, Horward and Upto (1961) define profitability very broad as the capability of any investment or financial undertaking to realise a return from its utilization. Whilst most organizations are structured in various layers and entities, business performance as a concept can be measured at different levels and approaches (Horward & Upto, 1961). This results in several levels of firm profits according to international financial reporting standards. For example, gross profit (GP), net profit (NP), or net operating profit after taxes (NOPAT). These are defined by the international financial reporting standard (IFRS) for all corporations taxable in the NIPA code (US) or similar IFRS bound jurisdictions such as countries in the European Union (IFRS Foundation, 2018). All organizations which are required to file trade, business, occupational or local taxes derived from corporate gains fall under the group of companies whose business results in corporate profit (Bureau of Economic Analysis, 2017). Therefore, corporate profitability provides a combined measure of present and future corporate financial health. In this role, it serves as an essential indicator of corporate and economic performance (Breuer, 2013).

5.2 Financial Measures for Corporate Profitability

KPIs are considered systems of financial and non-financial indicators characterizing development and prospects of a company. Aimed at the creation of transparency, reliability, and measurability, KPIs serve to establish a hold on tactical and strategical

company objectives for employees and executives (Kaplan & Norton, 1996). For some authors KPIs indicate compliance with performance levels, to set strategic goals for a companies and their subsystems (Strelnik, Usanova, & Khairullin, 2015).

A system of KPIs translates a company´s strategy in a language of measurable economic and business-related indicators to guide and secure its implementation. However, Huselid (1995) sees a KPIs as an indicators assessing the degree of achievement of tactical and strategical company objectives in all relevant business areas from revenue forecasting to operational HR Management.

Among the multitude of KPIs used to account for corporate profitability, not all are necessary for the analysis of downsizing measurements. As stated in section 4.4 a major goal of downsizers is to increase profitability through the financial implications of downsizing. Besides the given explanation for profit and profitability in the previous section, some downsizing studies define analysed profitability as the yearly operating profit or loss related to net-turnover (Kiviniemi, 2014). Oftentimes, these studies do not account for country-specific variations of accounting standards, but rather compare KPIs. Other financial indicators used for downsizing comparisons are related to corporate debt, e.g. debt solvency. It is defined as an existing long-term debt in relation to total assets and serves as a measurement of the total debt to equity ratio (John et al., 1992). While debt solvency allows an outlook on corporate performance and future financial survival of the firm, it does not account for workforce-oriented cost reductions. Even though reduced debt leverage will positively influence the corporate future performance through improved financial ratings, certain tax shields and the liquidity situation, Chalos and Chen (2002) support the reduced usability of debt related KPIs and pledge for a more focused perspective on equity.

5.3 Relevant Financial Measurements in Downsizing Studies

In an effort to forecast and measure the effectiveness and overall impacts on profitability, numerous statistics can be applied: Financial KPIs can be either income statement, balance sheet, or cashflow based, or measures combining elements from two or more of the categories (Love & Nohria, 2005). Based upon the frequency of occurrence in academic research, ROA and ROE, as well as profit margin is the most relevant statistical measurement. Further relevant income-based indicators include return on sales, or balance-sheet-based efficiency measurements e.g. asset turnover, sales or net income p.e. Comparable statistics used in academia are mostly income statement-based, such as profit

margin, current ratio, or balance sheet based e.g. sales productivity or operating margin. The following table shows the frequency of income statement and balance sheet based derived from previous studies:

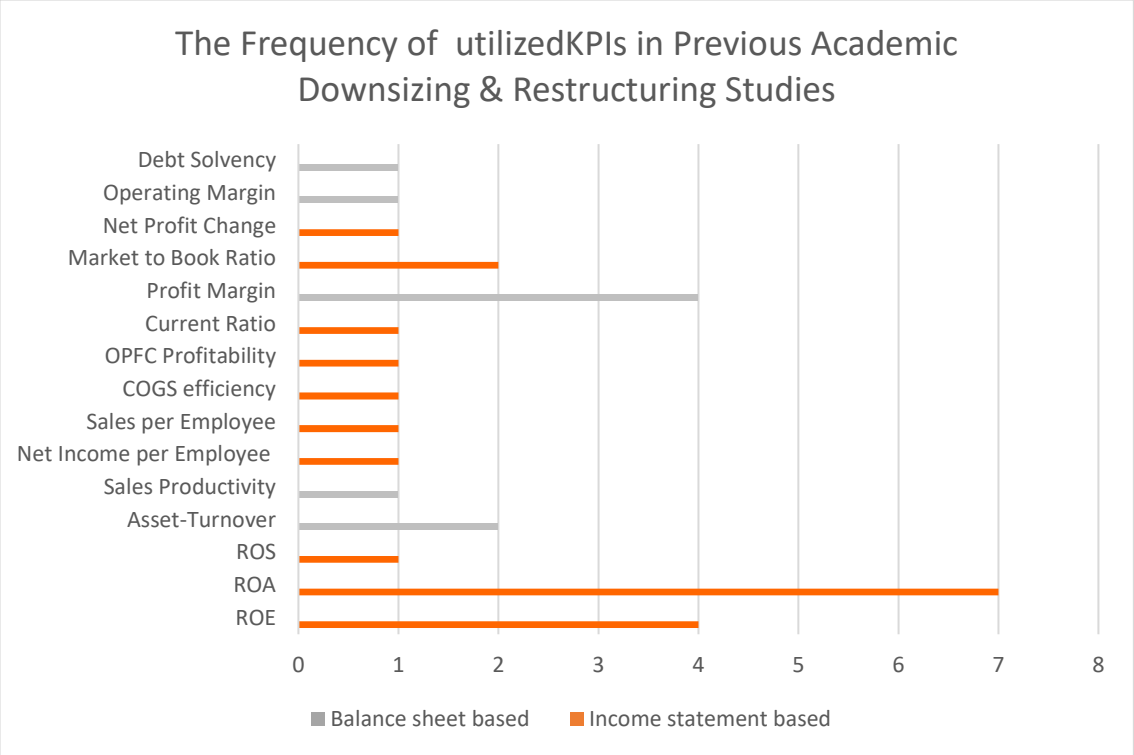


Figure 2: The Frequency of Utilized KPIs in Previous Academic Downsizing & Restructuring Studies; Own Illustration

Most studies theorize on event-based research where the base year of the analysed financials is the year following the downsizing announcement. Effects on profitability usually build upon improved average or median outcomes of the sample. Most studies build upon regression analysis to point out the significance of the transformation.

To select effective profitability measurements and derive with propositions about the profitability of downsizers, the most important financial measurements will be explained, deriving five out of 15 measurements for the corporate analysis in chapter seven.

5.3.1 The Most Frequent Applied Downsizing Statistic ROA

Return on Assets (ROA) is a measurement of profitability of every dollar invested, relating income to assets. Thereby, the ratio distinguishes between the profitability of any dollar invested by equity holders or equity lenders. Sometimes, the ratio is referred to as return on investment (ROI), when the overall return on all given investments is analysed (De Meuse et al., 1994). ROA is the most frequent ratio examining corporate profitability in downsizing studies (De Meuse et al., 1994; Mentzer, 1996; Casico et al., 1997; Elayan

et al., 1998; Chen et al., 2001; Chalos & Chen, 2002; Love & Nohria, 2005). Besides the regular ROA, some researchers use variations such as the ROA-market measure, the current performance divided by combined market-value of equity beginning-of-the-year and long-term book value (Love & Nohria, 2005).

Chen et al. (2001) and Chalos & Chen (2002) find more positive effects of downsizing in the years following the announcement. Comparable to ROE developments, downsizers show declining ROA three years prior to the announcement. Post-announcement, the corporations in the sample deliver increasing ROA and show an elevated ROA, not far from the industry mean within a seven-year window. Chalos & Chen (2002) add another phenomenon also found when analysing COGS or OPFC ratios: revenue refocusing and cost cutting strategies lead to a significant post announcement effect, while plant closures do not hold this significant effect but still positively impact the ROA. De Meuse et al. (1994) support Chalos & Chen´s (2002) findings with similar effects on the post- and ante-announcement phase. Before downsizing, corporations have a four to six percent lower ROA compared to non-downsizers. After the announcement, over a period of two years, ROA significantly decreases one to two percent p.a. resulting in a poorer performance of downsizers. Furthermore, the study revealed that companies downsizing greater numbers of employees significantly underperform compared to lower numbers of layoffs. Tested thresholds were three and 10% benchmarks, both held for the comparison. Morris, Cascio, & Young (1999) underline these results inferring that ROA increases, the more employees a corporation has. Consequently, the positive relationship between ROA and number of employees leads to a declining ROA for downsizers.

$$ROA = \frac{Net\ Income}{Total\ Assets}$$

5.3.2 Analysing Return Based on Company Equity through ROE

Return on Equity displays the relation of corporate profitability against every dollar invested by shareholders. The income-based ratio analyses the actual return to owners, based on their equity in the firm. The measurement is acknowledged to be the simplest test for the efficiency of downsizing activities. If the downsizing leads to an improved return on equity, the overall corporate goal, to create financial returns to its owners, is fulfilled (De Meuse et al., 1994).

Evidence for the positive effect of downsizing measurements is given by Elayan et al. (1998). The sample includes 1.362 announcements in between 1979 till 1991, showing that the average ROE decreased from 10.10% to 8.41% during the two-year period prior to the announcement. In the announcement year, the ROE averaged at 5.58%, before significantly increase to 6.61% in the year after and to 8.42% two years after the announcement. The same pattern was found in the average industry adjusted ROE, highlighting the overall improved efficiency of downsizers and their positive ROE.

$$ROE = \frac{Net\ Income}{Shareholder´s\ Equity}$$

5.3.3 Additional KPIs for Profitability Analysis

The frequent usage of corporate **profit margin** displays the effectiveness of this measure for the profitability analysis. By dividing profits through sales, the ratio can be applied as representing the cost of producing a dollar of final sales (De Meuse et al., 2004). Since profits are pre-tax income on the income statement, they cannot be taken simultaneously as net income. If labor costs per piece decrease due to downsizing, the profit margin is to rise and improve (Palmon, Sun, & Tang, 1997). De Meuse et al. (2004) highlight, that downsizers perform better compared to non-downsizers in an eight years period.

$$Profit\ Margin = \frac{Profits}{Sales}$$

Net income p.e., as well as **sales p.e.**, are two income-based efficiency measurements. Both workforce-based KPIs track the ability to generate net income and sales more efficient. Net income p.e. provides the contribution p.e. to corporate profit, while sales p.e. analyse the percentage of sales provided by each employee (Elayan et al., 1998). According to Elayan et al., (1998), both ratios increase following a downsizing announcement. The median net income significantly increases over the second and third year after the announcement, within the firm and compared to the industry median net income. Corporate sales productivity cannot be raised as much as the net income, by the different downsizing strategies, but still significantly. As for OPFC and COGS ratios, net income and sales productivity bear statistically significant improvements. Plant closure

might result in positive but insignificant effects of higher corporate profitability (Chalos & Chen, 2002).

$$Net\ Income\ per\ Employee\ = \frac{Net\ Income}{Employee\ Number}$$

$$Sales\ Productivity\ = \frac{Sales}{Employee\ Number}$$

Based on a numerical selection of measurement statistics, the consistency of statistics to cover income- and cashflow-based measurements is of importance to improve the validity of the developed propositions in chapter eight. On the income side ROA, ROE, net income p.e. and sales p.e. are selected directly related to corporate profitability. On the balance side, Profit Margin allows for a balance sheet measurement, directly relating the RiW to the overall financial well-being of a corporation.

5.4 Downsizing, Industry Performance and Economic Uncertainty

Every corporation is vastly influenced by the industry it is located in. The magnitude of effects, that arrive through the maturity of the industry, its cyclicality, and the general trend towards bullish or bearish industry development (Cameron et al., 1991).

Industry performance needs to be considered when evaluating the success and impact of an organizational restructuring, therefore business cycle elements during RiW need to be considered. Marshall, Mccolgan, & Mcleish (2012) examined RiW during the financial crisis of 2008 to compare these two periods of economic growth in the UK. Their outcomes show statistical significance of boom periods (2005 - 2006) leading to positive excess returns (0.51 to 0.8%) within two days (+-) from the public announcement. Whereas downsizing announcements made during the crisis lead to significant negative excess returns (1.75 to 1.95%) in the same duration. Their most outstanding finding: the reason behind the downsizing is not a significant factor for the return, while the business cycle is. This undermines the idea that downsizing decisions during economic downturns signal weak investment opportunities while downsizing under prosperous economic phases enhance efficiency.

Besides the positive highlighted perception of downsizing during boom areas and the rather negative during recessions, there is another meaningful factor concerning the state of the overall economy. Tuominen (2005) analyses the return differences between boom

and recession downsizers and concludes similar findings: downsizing during an economic downturn leads to negative abnormal returns, while layoff during phases of boom shows no abnormal returns. To account for industry performance capital intensity is included in the financial analysis of each case, besides a quick summary of the economic, and industry drivers. Capital intensity is an accepted differentiator between industries, as well as between top performers and industry average. Capital intensity is determined by the following formula:

$$Capital\ Intensity\ = \frac{Revenue}{Average\ Assets}$$

For the proceeding of this paper, it is important to include the economic situation and general industry trends into the analysis of German Downsizings. A negative economic surrounding is perceived to have a neutral or negative effect, whereas an economic boom should positively influence profitability, these impacts will be taken into account.

5.5 Concluding remarks on Downsizing Statistics

Downsizers aim for increased efficiency when the estimated positive effects of the strategy and the expected cash savings outweigh the continuation of the status quo (Elayan et al., 1998). Downsizers oftentimes apply the strategy reactive to meet necessary adaptations in changing market environments. Securing profitability does play a vital role in the decision to downsize or continue operations whilst a RiW might reduce cash outflow drastically. Here, downsizers have, compared to non-downsizers, a lower overall profitability, and higher debt solvency. However, both indicators might be important factors behind the strategic decision to downsize, to achieve a healthier balance-sheet as well as cost base (De Meuse et al., 1994). In this function, the strategy is a rational economic response for companies in financial trouble (Mone, McKinley, & Barker, 1998). Since downsizing aims at financial improvements, this effect should be measurable. Academic literature mostly bases its research on income-based indicators, ROA and ROE, and on balance-sheet-based, such as profit-margin, to measure downsizing effects. Even though there are numerous ways to capture efficiency increases, these three seem mostly preferred to analyse a company´s ability to produce a total return for equity holders on the total return. Even though empirical studies are inconclusive, Cascio et. al (1997) and Chalos & Chen (2002) find that Downsizers deliver improved financial performance post-announcement, compared to the industry average. They

conclude further, that revenue refocusing and efficiency programs as part of a downsizing strategy deliver superior financial results. According to Love & Nohria (2005), proactive downsizing outperforms reactive strategies, especially where higher cost bases indicate greater improvements on ROA. Contrary findings question the overall idea behind downsizing and prove no consistent relationship between the magnitude of the downsizing and improved future profitability (Mentzer, 1996). Some studies present evidence, showing no significant effect of downsizing on corporate profitability (De Meuse et al., 1994, & De Meuse et al., 2004).

These opposing findings raise the questions why some downsizers perform better than others, and what would not have happened if the downsizing would not have been undertaken to improve financial performance? Therefore, when assessing individual research around the topic, it should be kept in mind, that different samples, industries, and business cycles might lead to mixed outcomes between comparable studies. Combined with country-specific differences in downsizing-related regulations and proceedings, financial implications for downsizers have a multitude of results.

6 Methodology Chapter

The following chapter covers the methodological techniques applied in the research process. Successively, the research method, data collection, the research progress in the respective field, and the establishment of the company sample are analysed. Saunder´s, Thornbill´s, and Lewi´s (2009) vastly used framework of a research onion (Figure 3) is visualized below and subsequently depicted from the outermost (philosophy) to the most inner (data collection and analysis) layer. Based on the application of the respective philosophy, the fundamental research approach is defined. Upon this foundation, the researcher decides on a research strategy as a third step, before the methodological choice and time horizon have to be defined. Lastly, the actual data collection and analysis conclude the procession within the framework. With the ´onion´ Saunders et al. (2009) introduce a framework, consisting of a series of stages to illustrate the applicable methodology of the research process. The commonly used framework is applied within this paper due to its consideration of various research methodologies and widely accepted applicability. Based on the above-stated reasoning, the following chapters determine the different layers of the underlying ´research onion´, throughout subsections.

6.1 Research Method

Research frameworks provide a closer understanding of the chosen research methodology and the research procedure used in different studies. One frequently applied framework is Saunders, Lewis, and Thornhill´s research onion (2009). The research onion combines five layers from the outermost to inner: research philosophy, theoretical approach, strategy, choices and time horizon (Saunders, Lewis, & Thornhill, 2016).

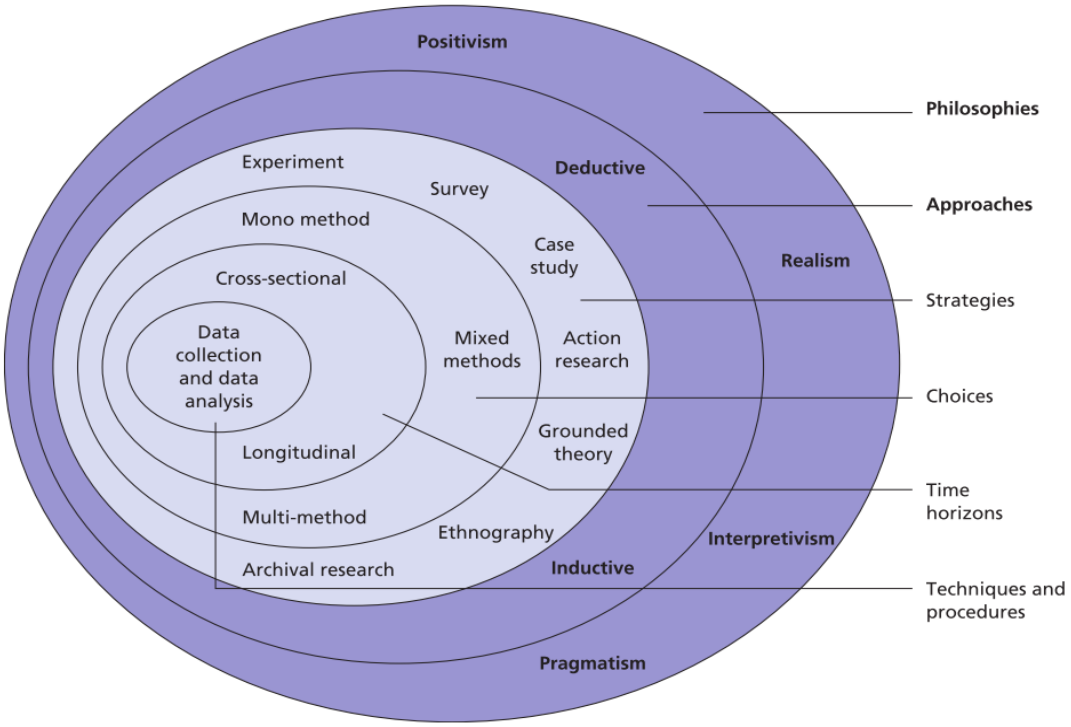


Figure 3. The Research Onion; From Saunders et al. (2009)

The amount of research based on the proceedings of the research onion allows for a great provision of details and the ability of researchers to highlight their foregoing step by step (Saunders, Lewis, & Thornhill, 2009).

6.2 Research Philosophy

The philosophical background of the ´onion´ contains various assumptions about the system of beliefs, the assumptions as well as the applied worldview within the research process. Thus, philosophy is placed as the outermost layer of the ´onion´. The derived assumptions lead the applied research strategy and chosen methods (Saunders et al., 2009). Further, Johnson and Clark (2006) support this view because researchers need to be aware of undertaken philosophical commitments derived from their choice of strategy.

The philosophies differ in their intended goals, while the concluded choice allows for efficient creation of knowledge. Major philosophies are grouped into Positivism, Realism, Interpretivisms, and Pragmatism.

Positivism as a philosophy is based on observable knowledge with a limited role of the researcher since the main effort is the collection and successive objective interpretation of data. Findings within this philosophy must be observable, calling for a statistical analysis, as results are numerically quantifiable. Realism, the second philosophy, suggests the independence of the human mind from reality. The philosophy is split into direct and indirect Realism: while direct Realism lets the human portray the world based on human sense, the indirect philosophy is based on a human´s experience of the sensation of the world, even though they do not portray reality and the real world. Philosophy number three, Interpretivism, depends on the interpretation of gathered research elements and is based on the integration of human interest. Therefore, Interpretivism supports qualitative rather than quantitative data whilst there is more room or interpretation. Lastly, Pragmatism as a research philosophy combines the assumptions of Positivism and Interpretivism. The approach allows for qualitative and quantitative methods (Rubin & Rubin, 2011)

The majority of data analysed in this paper is qualitative to facilitate the development of propositions. Therefore, Interpretivism as a research philosophy is chosen. Collected data relies mostly on trustworthy secondary data, supplied by the researched organizations.

Interpretivism combines a range of downsides, such as room for bias towards the researcher or hard-to-generalize data whilst data is gathered from an individual point of view (Saunders et al., 2009).

6.3 Research Approach

Research is mainly conducted in two manners: the deductive and inductive research approach, to be compared in Appendix 1.3. A deductive research approach is based upon the development of theory and hypothesis, before these are tested and successively rejected or confirmed. Deductive reasoning is defined as deriving conclusions from formally built premises as the foundation for the later outcomes, even though the reliability and truthfulness of the premises must be secured. Deductive reasoning and the positivist approach do fit best since they can result in the formulation of hypotheses and it´s confirmation or rejection.

Contrary, the inductive research approach commences from the observation and continues with the analysis of patterns to derive and establish a theory. Intuitively, valid premises do not have to automatically lead to valid conclusions. Inductive Reasoning is found mostly with qualitative data, generating new theories, and adding fits into existing theories.

A third, infrequently used approach is the abductive reasoning. It introduces a surprising or provocative fact, which serves simultaneously as a start and conclusion of the research process. Abductive reasoning neither approaches data from theory as the deductive approach, nor vice versa as the inductive approach, but combines both methods (Saunders et al., 2009).

This paper is based upon two distinctive literature reviews as the basis of the underlying thesis, these literature parts cannot be utilized as the foundation of the hypothesis development. Even though both parts intervene with each other through the usage of profitability KPIs in Downsizing studies, they are mostly linked in the empirical part. Since the research aim has not been previously examined in its geographical and legal extent, data has to be gathered and analysed individually, before theoretical statements are developed. Thus, this study follows inductive reasoning to derive with propositions.

6.4 Research Design

The natural design of the study is exploration, following the exploratory study design, also known as Worldsupporter (n.d.). Therefore, the aim is data exploration to collect new insights within the scope of the subjacent objectives of this paper.

6.5 Research Strategy

Successively, a research strategy must be adopted in line with the previously chosen research philosophy and approach. A strategy can be obtained in one of the following ways: experiment, survey, case study, action research, grounded theory, ethnography, or archival research. Even though an in-depth analysis of all named options would be beneficial for the integrity of the paper, only the matching strategy based on previously selected layers is depicted.

The suitable strategy for the chosen research design and research question, based upon the conceptualization of this paper is the case study analysis. This strategy can be adequately defined as research involving empirical analysis of selected contemporary

occurings midst their real-life context, while applying a manifold body of sources and evidence (Robson & McCartan, 2016). The importance of the context is highlighted by Yin (2009), clarifying that boundaries between the studied phenomenon and the case cannot be drawn clearly. In comparison to other strategies, case study research does not happen within a controlled context, as in experimental settings, or introduces a limitation to exploration and comprehension due to the number of variables collected as the survey strategy.

Case study analysis benefits researchers through rich insights and understanding of the given context and the enacted proceedings (Morris & Wood, 1991). Commonly used for "why", "what" and "how" questions, the case study is most frequently applied in explanatory research. Data collection is most often a mixture of various sources including observations, documentary analysis, interviews, or questionnaires. This combination is defined as a triangulation of various data collection techniques included in one study, to ensure maximal reliability. Alongside the strategy, two differentiations can be drawn: single versus multiple cases and holistic versus embedded case strategy. The deepness of analysis and prior research effort upon question and organization distinguishes between single and multiple case strategy. A single case design is often applied in unique or rather extreme cases. When the research object is a single organization and prior research phenomenon has not been previously considered, single case designs are selected. When two or more organizations are at the centre of the research, a multiple case strategy is selected to verify findings are individual or occur in more cases. The rationale behind reoccurring findings is the possibility of generalization of a certain phenomenon. The generalization from a singular case is almost impossible and lead the opinion that single case strategies need to have strong justifications. The second differentiation is drawn according to the underlying research object, namely the complete organization, or several of its sub-units. If researchers are concerned with the overall organization, and not logical subunits, a holistic case design is usually applied. Vice versa, if the strategy includes more than one unit of analysis within a single organization, the strategy is embedded, not taking into consideration the number of subunits or deepness of analysis (Yin, 2009).

The case study design as research strategy is derived from the attributes of the afore implied selection. Since the scope of this paper has been studied with limited reach in geographical and legal terms, a multiple holistic case study design allows the generation of propositions from the collected and examined data (De Meuse et al., 2004). Firstly, data is conducted by documentary analysis, based on a theoretical sampling beforehand.

Secondly, all metric KPIs are analysed in their respective category, which is derived from the previously undertaken assessment of a certain number of widely used financial metrics. Thirdly, propositions are development based on their evaluation.

6.6 Choice of Data

Upon the chosen research strategy, data can be examined in different ways through a mono, or multiple method approach. The chosen method thereby depends on the scope of the applied analysis technique: because a matching technique relies on the considered types of data, these will be explained before the methods are introduced: data expressed through words or images is qualitative, whereas data expressed numerical is quantitative (Saunders et al., 2009). Quantitative research examines large, random, or representative samples in a statistical, empirical, and experimental manner, typically collected through inanimate tools as scales, surveys, tests, questionnaires, and computers (Booth, Colomb, & Williams, 1995). In contrast, qualitative research undergoes fieldwork, physically analysing people, institutions, natural settings, and documents. Usually, all can be used single, even documents alone serve as qualitative study material (Bryman et. al, 2011).

The mono method follows either quantitative or qualitative data collection without any mixture of the collection. The purely qualitative approach oftentimes applies a claim based on a constructivist or positivist perspective to develop theory from individual experience, or historical or social meanings. To allow this theory development, narratives, grounded theory or case studies are applied to develop themes from the data. Quantitative research choice utilizes primary postpositivist claims to develop knowledge or employs strategies of inquiry f. ex. experiments, surveys, and data collection for statistical analysis, based on predetermined instruments.

In contrast, the multiple method subsumes multi and mixed methods with each of its implications as seen in Figure 4.: The mixed methods allow to study both types of data collection and analyses procedures within the chosen research design and without further restrictions. The mixed method research includes both types of data collection and

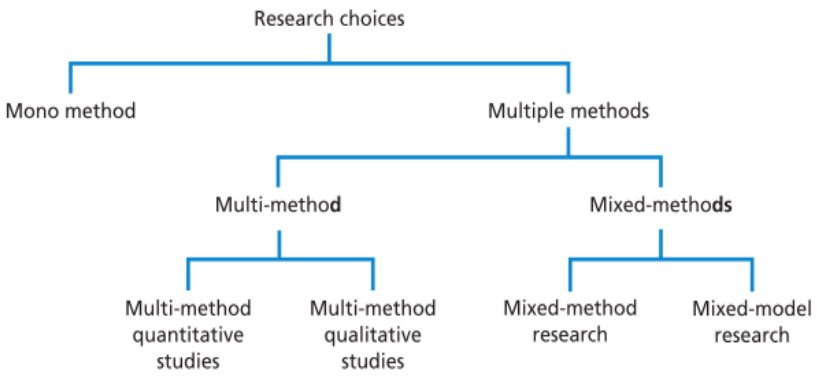


Figure 4. Research Choice, From Sauder et. al (2009)

analysis procedures either parallel or sequential but in combination. The analysis is done deductively through statistical tools, e.g. median or quantiles, that may result in precise findings (Merriam, 1998). Mixed-model research includes quantitative and qualitative collection techniques and analysis while combining these with quantitative and qualitative approaches in prior and later phases of the research.

The multi-method includes the qualitative and quantitative multi-method research, and relies on more data collection techniques with a restriction on either quantitative or qualitative data collection (Saunders et al., 2009).

Besides the clear differentiation between methods, there is an inevitable connection between the utilized technique for data collection and the derived outcome. It is impossible to determine the nature of the relationships. All procedures and techniques produce varying effects that if mixed, cancel out each other's shortcomings (Smith, 1981).

Consequently, the chosen method is a qualitative mono research method. Even though qualitative and quantitative data is collected, the analysis happens in a descriptive and comparing fashion for more than one type of data. The application of mixed method research is not considered supportive, due to limitations in data availability and in transparent quality. The mono qualitative approach allows to create a vivid picture of the multiple cases and the financial performance.

6.7 Time Horizon

Upon discussing the inner layer of research techniques, the time-horizon of the underlying study needs to be identified. Saunders et al (2009) articulate that the time-taken to research a phenomenon is independent of the chosen research methodology. Timewise, the horizon can be longitudinal or cross-sectional, indicating the pure length of the undertaken monitoring and its point in time. Longitudinal research analyses a phenomenon over time depicting its changes, aiming to research the dynamics of a certain problem. Cross-sectional studies take a phenomenon´s momentum at a certain point in time. Therefore, cross-sectional studies are applied to analyse certain phenomena over a specific time horizon. For most case studies, there is usually a longitudinal element: cases are examined over a fixed period, while data is collected periodically, year-on-year. This thesis applies a horizon of three years, to allow a cross sectional comparison.

6.8 Data Collection and Analysis

6.8.1 Collected Data

The collection of data, to gather information, can be undertaken in a primary and secondary manner. Primary data has been unpublished and is collected for a specific or unique purpose. Whereas secondary data has been previously published in studies, reports, journals and so forth (Booth, Colomb & Williams, 1995). The gathered data in the empirical part of this study is secondary since it originates from either secured but openly available corporate annual reports and academic studies, or the statistical database Bloomberg. Additionally, secondary data collection is applied when data is gathered within the literature review throughout the afore sections of this paper.

In solving the question of how downsizing impacts corporate profitability, the fundamentals of downsizing, profitability and corporate performance are reviewed in chapter four to create an up-to-date picture of the research field in geographic context. Here, secondary sources of literature are used including studies, journal articles, and book section in the afore part of this papers. Secondly, corporate annual reports and academic studies are used to create a vivid picture about the overall corporate and industry performance during the time of the downsizing. This part relies on secondary sources that enable an analysis of the corporate performance from in- and outside. Thirdly, quantitative financial information about the case specific downsizing is collected through data from corporate annual reports in two cases, and from Bloomberg in four cases[2]. This secondary data serves as a basis for the quantitative analysis of corporate profitability in the selected time horizon in the last part of each case. By combining qualitative and quantitative data in a mixed fashion allows for a qualitative analysis based on quantitative results (Booth et al., 1995).

6.8.2 Sampling

The original sample includes all companies that were listed in the DAX between 2000 and 2015. The DAX is defined as the large corporation stock index of Germany, listing 30 corporations that can be exchanged, based on their market capitalization (Deutsche Börse, 2009). This company sample was based on the DAX for certain reasons:

[2] For the Automotive industry, data was extracted from the annual report, due to the extraction difficulties, concerning the separation of Daimler form Daimler Chrysler´s financial results within the data sets of Bloomberg. Thus, corporate annual statement data was utilized to allow homogenous data. For all other cases Bloomberg data sets could be utilized.

The corporation must have been part of the DAX 30 in between 2000 and 2015 for at least three consecutive years. The corporation may have been excluded or entered the index throughout the whole period. So, all firms belong to the same stock market and have the same scrutiny and publication principles, demanded by the German Stock Exchange Bureau. They are generally confronted with similar regulations and situations in the stock market. Even though these companies operate in different industries, they belong to the same peer group, and probably face similar socio-cognitive considerations. Besides, their listing on the index fosters the application of the same set of accounting principles, minimizing distortions of financial measures. Additionally, a focus on large corporations allows greater comparability with previous studies, mostly focused on large public firms (Vicente-Lorente & Suarez-Gonzalez, 2007). Further, the DAX holds various industries, none account for more than 25% of the total value of the index. Even though many downsizing studies focus on the manufacturing sector (D. K. Datta, Basuil, & Radeva, 2010) the used sample includes the service industry as well. Downsizing among service corporations is especially relevant due to the strong reliance of human capital and the increasing importance of the service industry (Brauer & Laamanen, 2014). The result is a set of 34 companies who total to 450 company years that needed analysis. Through careful consideration of annual reports, focused on headcount, the selection was drawn according to the following factors:

First, restructuring must be either financial or organizational, as both refer to a RiW. Portfolio restructuring will not be analysed as it does usually not take operationalized RiW into account, even though it is occurring side by side with organizational or financial (Bowman & Singh, 1993). Second, the company must have stated a restructuring activity within its annual statement or within a publicly available statement. This approach has been used in downsizing research and allows for a definite number of companies a rather accurate picture of the downsizing situation (Brauer & Laamanen, 2014). Third, almost all companies operate outside their home country, while being headquartered in Germany. This opens potential home country biases (Brauer & Laamanen, 2014). Therefore, the downsizing activities are solely focused on their separately analysed German reductions. Fourth, the percentage of workforce reduction must be significant. According to German Labor Law (KSchG), at least 30 out of 500 or six percent of the total workforce (Kündigungsschutzgesetz §17 (3), 2004) must be downsized. However, large-scale downsizing studies usually utilize five percentage (Casico, Young and Morris, 1997; Chen et al. (2001). This paper follows most downsizing studies to comply with prior

research in the field. Purely passive reductions solely based on natural fluctuation through prior pension agreements (Altersteilzeit) or regular termination of working contracts from the employer side are considered within the sample in the respective years since natural fluctuations, as passive downsizing happen continuously besides active RiW.

To obtain relevant headcount information to derive with RiW in between 2000 and 2015, the previous 34 DAX members (Appendix table 1.4) were researched according to headcount, by using Bloomberg Professional Service and publicized annual reports.

6.8.3 Analysis

The underlying analysis on downsizing and corporate performance use different approaches. Historically, downsizing research frequently uses qualitative approaches, when analysing single industries and individual cases (Mirabal & DeYoung, 2005; Gandolfi, 2013). To answer the selected research questions about the extent to which downsizing influences the corporate profitability of German corporations, common statistics are measured and compared quantitatively. The selected quantitative statistics originate from three areas:

- Workforce Performance: Employee change, Net Income p.e., and Sales productivity
- Industry Performance: Economic situation, and capital intensity
- Firm Performance: ROA, ROE, and Profit margin.

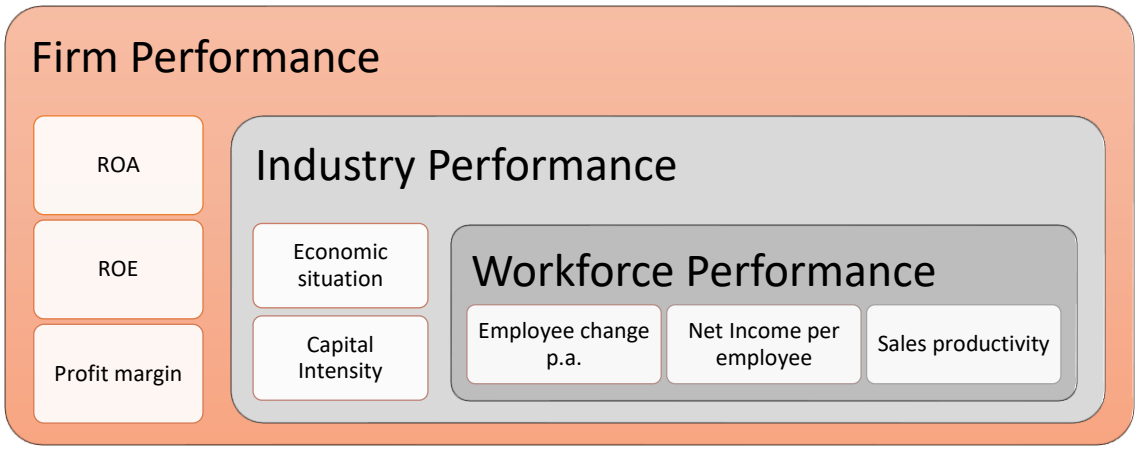


Figure 5. Analysis Proceedings; Source: Own Illustration

Business-related and downsizing-related indicators stem from the frequency analysis of income statement and balance sheet-based statistic in Chapter 5.3. Industry-related measurements include the company´s capital intensity, to account for respective industry dynamism, and general economic setting (Guthrie, Datta, & Guthrie, 2008)

These findings are used as the numeric foundation for the later comparison and lastly the development of propositions. Propositions are formulated based on a descriptive evaluation of successful downsizings KPIs (e.g. increased profitability). When more than three out of six KPIs developed positive throughout the respective downsizing program, the restructuring is categorized as successful.

The explorative approach undermines the research approach and the restrictions that accompany the research method. The chosen research approach, descriptive and explorative, allows to better document, describe, and help to answer the research issue. This follows a logical reasoning: German research on the topic is compared to the US, UK or France, partly underdeveloped, due to regulatory circumstances on its proceedings (Weiss & Ivars, 2001).

6.9 Limitation on Data

Firstly, Germany does not have any binding regulation or law, obligating corporations to publicly announce a downsizing or restructuring, as long as it is not directly linked to bankruptcy or holds significant influence on the stock itself (Gerhard & Merten, 2017). There is neither a governmental or economic registration of such passive downsizing measures nor a scientific database for research. This is driving need for research of secondary data from corporations, journals, service organizations, and other sources to realize a set of data on corporate downsizing measurements and their impact.

A simple reason for the fragmented information is missing guidelines for workforce ad-hoc publication requirements in Germany´s legal code. The Works Constitution Act and the Securities Trade Act treat downsizing as a measurement of restructuring and thereby labelling it an internal development that could or could not be issued (WpHG, 2018; KschG 2018).

The resulting conflict does not only evolve in downsizing related topics but in general business terms, e.g. what needs to be treated as an insider information or to be released due to the obligation to notify shareholders. Gerhard & Merten (2017) state instances that could justify ad-hoc information according to § 111 S. 3 BetrVG: Changes in the operational and organizational structure, especially greater restructurings. These changes (Betriebsänderungen) might be outsourcing, spin-off, or offshoring activities, greater workforce reductions (sozialplanpflichtige Bertriebsänderung), and mergers of different segments to realize synergies and considerable reduction or decrease in labor cost. Nevertheless, information related to these topics does not have to be published and no

reliable database is established to facilitate quantitative research on the segment of reductions in the workforce (Bhankaraully, 2018).

Secondly, the applied approach questions the generalizability of qualitative research or a case study. This is related to the significance of this type of research to theoretical propositions (Bryman 1988; Yin 2003). The sample size of six cases does not hold a significant amount of cases, to allow for a statistical significance test. Hence, this thesis follows a path, combining qualitative findings in a higher number, to allow for the identification of patterns and their impact on profitability. The established results are then combined with outcomes derived from the quantitative analysis. This paper relates a research project to existing theory to demonstrate that findings have a broader theoretical significance than the individual case or cases that form its foundation (Marshall & Rossman, 1999).

6.10 Proposition Development

Propositions are developed subsequently in chapter eight to answer the question on how downsizing impacts the profitability of German corporations intra- and inter-industry. Profitability is measured in various forms and manners (see chapter 5.3). Following the chosen analysis, the impact is measured on workforce, and business performance.

Compared to the majority of downsizing research, using hypothesis and hypothesis testing, this paper is of a kind that develops propositions based on multiple holistic cases, to build a comparison to serve future qualitative studies (Mirabal & DeYoung, 2005; Gandolfi, 2013). The difference between hypothesis and propositions lies in the use of logical constructs. Both stand for logically conjectured relationships between two or more constructs. Hypothesis investigates variables derived from a testable statement, whereas propositions are broader mental configurations of a certain phenomenon in the form of an untested statement (Ban & Ry, 1993).

Due to limitations, described in the previous part, the usage of propositions in the context of German downsizing research seems most appropriate in the current state. After theorizing around the data source, by applying the theoretical framework gained from the undertaken literature review, the specified outcomes of each case are described, before propositions are developed successively in an inductive manner.

7 Results

7.1 General Results

Downsizing in Germany is a frequently used practice among large corporations. These findings are based on the documentary analysis in the first chapter of the general results. Even though final propositions about the financial implications of the downsizing are drawn after the latter, case-based evaluation, the answer for the question on "*How do German DAX members apply downsizing?*" starts here with a general overview of findings, before the respective cases are developed and the second question "*How do DAX members perform in a three-year period after a downsizing?*"

The sample was divided into eight categories, derived from the DAX categorization: Automotive & Manufacturing, Banking & Insurance, Chemicals, Consumer Goods & Retail, Energy, ICT & Datamanagement, Retail, Transportation & Tourism, and Resources. After analysing headcount and FTE for gradual shifts and negative developments over a three-year period, the respective downsizings were classified into Portfolio or Asset & Financial downsizing. All 34 companies engaged in organizational or asset downsizing activities, 23 of 34 corporations state the activity in their annual statement and only 17 of 34 (50 %) undertook a downsizing in Germany. A minority reduced more than five percent over a three-year timeframe in Germany, and just eight out of 34 downsized in an industry with a direct competitor between 2000 and 2015:

DAX Analysis Downsizing								
Corporation	Sector	Organizational Downsizing?	Restructuring stated in AR	Downsizing in Germany	Downsize > 5%	Industry Counterpart	Comparability of Business Model	
Adidas	Consumer Goods & Retail	x						
Allianz	Banking & Insurance	x	x	x	x	x		
BASF	Chemicals	x	x					
Bayer	Chemicals	x						
Beiersdorf	Chemicals	x	x	x	x	x		
BMW	Automotive & Manufacturing	x	x	x	x	x	x	
Commerzbank	Banking & Insurance	x	x	x	x	x	x	
Continental	Chemicals	x	x	x				
Daimler	Automotive & Manufacturing	x	x	x	x	x	x	
Deutsche Bank	Banking & Insurance	x	x	x	x	x	x	
Deutsche Börse	Banking & Insurance	x						
Deutsche Post DHL	Transportation & Tourism	x	x	x				
Deutsche Postbank	Banking & Insurance	x	x	x	x	x	x	
Deutsche Telekom	ICT & Datamanagement	x	x	x	x	x		
E.ON	Energy	x	x	x	x	x	x	
Fresenius Medical Care	Chemicals	x						
Fresenius	Chemicals	x						
Heidelberger Cement	Resources	x	x					
Henkel	Chemicals	x						
Hypo Real Estate	Banking & Insurance	x	x	x	x	x		x
Infineon	ICT & Datamanagement	x	x	x	x	x		
K&S	Resources	x	x	x	x			
Linde Group	Chemicals	x						
Lufthansa	Transportation & Tourism	x	x	x				
MAN	Automotive & Manufacturing	x						
Merck	Chemicals	x	x	x				
Metro Group	Consumer Goods & Retail	x						
Münchner Rück	Banking & Insurance	x						
RWE	Energy	x	x	x	x	x		x
SAP	ICT & Datamanagement	x	x					
Siemens	ICT & Datamanagement	x	x					
Thyssenkrupp und ThyssenKru	Automotive & Manufacturing	x	x					
TUI	Transportation & Tourism	x	x	x	x	x		
Volkswagen	Automotive & Manufacturing	x						
N = 34	8	34	23	17	14	13	8	

Figure 6. Qualitative Sample Creation; Source: Own Illustration

Overall, 23 corporations (67.5%) stated that asset or organizational downsizing has occurred in between 2000 and 2015. While only 50% of the sample reduced the amount of labor in Germany, less than 42% directly downsized more than five percent throughout the downsizing activity. Based on the selection of samples, only 13 cases (38.2%) of companies have a direct industry counterpart in the selected period, and only eight have a directly comparable business model during the downsizing foregoing.

Industry-wise, almost all industries included downsizers in the respective periods. One outlier, Consumer Goods & Retail, including Adidas AG and Metro Group does not hold significant downsizing potential. While Adidas AG could almost continuously increase its number of employees, Metro Group could steer its activities mainly without unforced redundancies (betriebsbedingte Kündigung), never reducing more than 6% within one business year in Germany.

Companies labeled the measurements in various ways within their annual statements, from least to most commonly used terms: Social plan and transfer of human resource (Sozial Plan & Transfergesellschaft), corporate reorganization (Unternehmens-reorganisation), downsizing (Mitarbeiterreduktion/ Verringerung der Anzahl von Mitarbeitern oder Äquivalenten), efficiency program (Programm zur Effizienzsteigerung). Timewise, most downsizings happened in two periods: first, following the financial crisis (2007/2008) with eight downsizings (40%), equally split between downsizings lasting from 2008 to 2009 and 2008 till 2010. Second, after the Dot-Com Bubble (2000/2001) with seven downsizings from 2002 till 2004. Here 3 downsizings occurred in 2003, two between 2002-2003 and another two between 2003-2004.

After analysing the overall sample quantitatively, the following set of companies in its industry sectors evolved for the mixed-method direct case comparison:

Nr	Industry	Company
1	Automotive	BMW AG
2	Automotive	Daimler AG
3	Banking & Insurance	Commerzbank AG
4	Banking & Insurance	Deutsche Bank AG
5	Banking & Insurance	Deutsche Postbank AG
6	Energy	E.ON AG
7	Energy	RWE AG

Figure 7. Sample of Selected Downsizers According to the Data Analysis, Source: Own Illustration

The Banking and Insurance sector offers four potential cases, derived from the direct comparability of business models. Hypo Real Estate is excluded as its model is based on real estate financing, while all others are based on commercial and investment banking. Additionally, Deutsche Bank is not included, as it takes the leading position in the German banking sector, accompanied by greatest market share and cash reserves that facilitate the restructuring. This allows analysis of the counterparts Daimler AG & BMW AG, Commerzbank & Postbank, and RWE & E.ON in a successive periodical manner.

7.2 Downsizing Multi-Case Analysis

Based on the selected metric KPIs derived from a previously undertaken assessment of widely used financial metrics in chapter 5.3., downsizing programs of the established company set are analysed. Each section begins with an industry overview before selected cases are compared visually and finally verbally to understand, how DAX members perform in a three-year period after a downsizing. Each case is analysed top down: firstly, a company and restructuring description is given, secondly, the workforce adaptations and related indicators are described, thirdly the economic environment and changes in capital intensity are derived, and fourthly business performance is visualized and explained. Cases are compared intra-industry before the multiple downsizing cases are compared inter-industry to establish valid comparisons between cases.

7.2.1 Downsizing in Automotive Corporations

Automotive corporations usually depend heavily on the world economies stability and business cycles. Especially the German automotive industry exports the majority of its vehicles to European countries, USA and China (Schade et al., 2014). The economic situation for automotive corporations in Germany between 2000 and 2015 is characterized by the changing forms of mobility linked to the energy transformation, sales shocks caused by local market crisis in Asia and South America, and the global financial crisis, combined with regular business cycles dynamics. Market entry barriers are traditionally high as it requires technological leadership, combined with local sales-force and brand recognition (Mönnig, 2011). German car manufacturers could lead in the premium segment worldwide throughout the complete period with Audi, BMW, and Daimler, and Volkswagen, even though the industry underwent major cutbacks in 2004 and 2008. The first downturn, imposed by a saturated market in Europe and North America, lowered demand for premium cars world-wide, blurred the market outlook for

German car manufacturers in 2004 before Asian demand sharply increased between 2004 and 2007. The second occurred during the financial crisis of 2008/ 2009, sales of German car manufacturers dropped by 20% within a year and overcapacity reached an enormous magnitude. Losses could only be curbed due to cost reduction programs, dynamic production, and delivery schemes and flexible working law (Schade et al., 2014). The market environment was mixed between 2000 and 2010, even though after the period between 2004 to 2007, car sales roses steadily. This trend continued from 2011 onwards with sales records year-on-year. The following table gives a summary of the key facts of both downsizings:

Company Name	**Daimler (Chrysler) AG**	**BMW AG**
Downsizing Program	Efficiency Increase Program "CORE"	Strategy "Number ONE"
Downsizing as a Restructuring Tool		
• Proactive or Reactive downsizing	• Reactive	• Proactive
• Restructuring Mode (Enderwick)	• Rationalization	• Rationalization & Internationalization
• Subcategories (Dewitt)	• Retrenchment	• Downscaling
• Subcategories (Charlos & Chen)	• Cost cutting	• Revenue refocusing
• Rightsizing	• Rightsizing	• Rightsizing
Strategic Implementation of Downsizing		
• Archetype	• Reinforcement	• Reorientation
• Implementation Strategy	• Organizational adjustment	• Organizational adjustment & Systemic strategy
• Active vs Passive	• Passive	• Active & Passive
• Forced Redundancies	• Without forced redundancies	• With forced redundancies
Downsizing Period	2005 till 2008	2007 till 2010

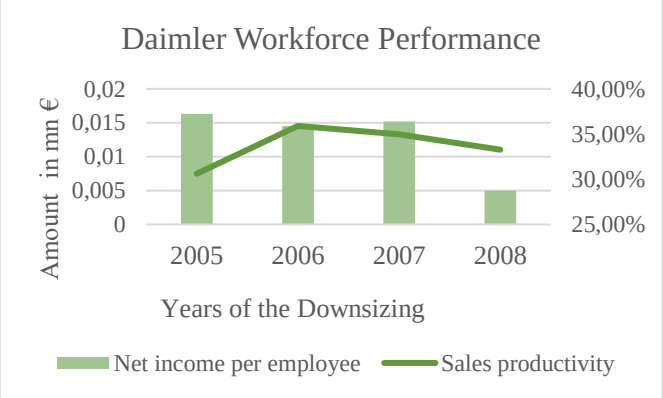
RiW Magnitude (FTE)		
1 year	296.109 to 277.771 (6.6%)	107.539 to 100.041 (~6.67%)
3 years	296.109 to 274330 (~7.36%)	107.539 to 95.453 (~11.24%)

Table 4. Automotive Industry Downsizing Comparison; Source: Own Illustration

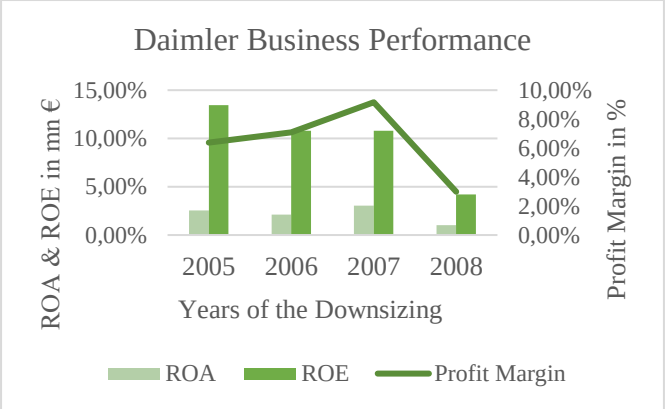
Daimler AG:

Daimler AG, former DaimlerChrysler till 2006, is a German manufacturer, distributor, and seller of cars, trucks, buses, and vans. The Stuttgart-based company was founded in 1998 as DaimlerChrysler AG, after the merger with the US auto corporation Chrysler. The renaming to Daimler took place after the demerger of Chrysler in 2007. Besides its automotive and industry services, Daimler provides financial and other mobility services related to its automotive businesses (Bloomberg, 2018c). After the merger with Chrysler in 1998, the automotive giant struggled to accomplish previously assumed synergies and could not obtain the planned financial performance till 2001. The post-merger integration process was tranquilized by a magnitude of personal, managerial, operational, and strategic flaws, decreasing the operational and financial performance of the corporation. When the company finally reached the targeted synergies, board and management fostered a plan to increase quality and operational efficiency by reducing overall organizational slack and adopt a tighter corporate layout (Meyer et al., 2002). DaimlerChrysler introduced CORE, a program to increase efficiency in the second quarter of 2005 before Chrysler was sold to a US consortium under the leadership of Ceberus Capital in 2007. However, the demerger was not part of the efficiency program and was timed planned well ahead. CORE´s workforce adaptation was driven by five strategic goals: profitability, competitive workforce, forward-looking leadership, highly perceived employer brand, and a professional organization. In numbers, CORE aimed at a reduction in administration allowances by €1.5bn per year, an increase of the operating margin to seven percent, and an integration of a new management model throughout different entities by 2007. Structural changes included a consolidation and integration of administrative functions such as Finance, Controlling or R&D, while gradually introducing a thinned management structure. Since administrative expenses lay above an industry average, CORE was inevitable to reach the targeted profitability margin, and shrinking human resource capacities essential, to reduce human-related allowances. A

RiW of 8.000 employees in Germany plus a reduction in administrative functions by 20% (6.000 employees) worldwide (DaimlerChrysler AG, 2005). The following charts do show the performance of Daimler as part of the DaimlerChrysler corporation till its demerger in 2007 and continuous performance after, employee numbers are calculated for Daimler only from the annual statement and can be found in Appendix 1.5. Effects are adjusted and financial KPIs are calculated based on Daimler´s performance, excluding Chrysler in the years from 2004 to 2007, thus the corporation will be called Daimler in the following analysis. Daimler could reduce its workforce by 7.36% from 296.109 in 2005 to 274.330 in 2008. The company mainly downsized in 2006 (6.6%), where the full amount of reductions could be realized by active measurements, through agreements to terminate work contracts. In the two years after, terminations lay at 2.18% and even an increase in workforce by 0.97% in 2008. Performance-oriented KPIs did not show a constant trend: while net income p.e. drastically shrank from €0.0163 mn to €0.0049 mn in 2008, sales productivity rose between 2005 to 2006 from 30.61% to 35.90%, before it fell to 33.29% in 2008. In the second half of 2005, the economic environment for Daimler brightened due to falling commodity prices and a stronger demand in North America, before the industry could announce a world-wide peak of production and sales in the second half of 2006 (DaimlerChrysler AG, 2006). The upcoming economic recession drastically changed the bright industry outlook. It started in the US before effecting Asia and lastly Europe at the beginning of 2007. During this time, Daimler outperformed its ceasing partner Chrysler and announced a financial and portfolio restructuring in 2006 before selling its majority in Chrysler at the end of 2007 (Daimler AG, 2007). In this environment, capital intensity rose by 29.35% to 75.26% in 2008, compared to 58.19% three years prior. Further financial metrics showed a mixed trend the three years following the announcement of the project “CORE” in 2005:



ROA slightly increase from 2005 (2.54%) to 2007 (3.05%) but fell drastically in 2008 to just 1,04%. ROE shows a steep decrease from 13.44% in 2005 to solemnly 4.19% in 2008. Profit margin firstly improved by 43.37% till 2007, before it fell to 2.99% in 2008. While Daimler´s sales increased by 0.73% during the analysed period, its revenue decreased by 7.27% to €100.596 mn till 2008. Profit more than halved (-52.78%) during the three-year interval and sunk to €2.830 mn, and net income shrank by 71.66% to bottom out at €1.370 mn in 2008. Daimler´s total assets reduced by 30.24% to €132.219 mn, while Shareholder equity fell simultaneously to €32.724 mn.



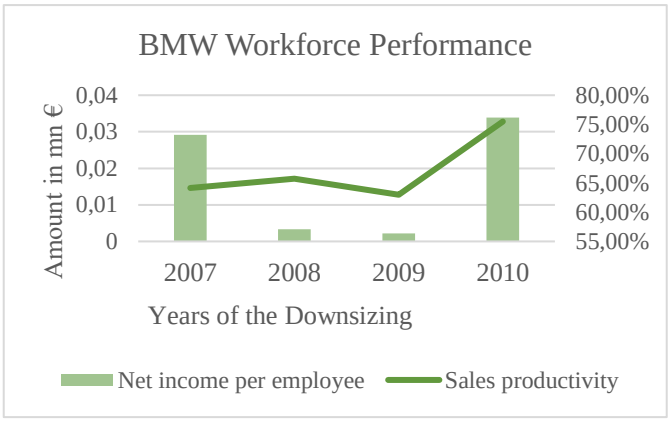
Daimler undertook its downsizing in a rather positive economic environment before the financial and later economic crisis occurred in 2007 and 2008. The overall development is heavily influenced by the recession and lowered all financial KPIs to a pre-crisis and pre-downsizing low. In this environment, Daimler could not improve its financial performance during the analysed period, thus, the downsizing is classified unsuccessful (Daimler AG, 2007; DaimlerChrysler AG, 2004, 2005, 2006).

BMW AG:

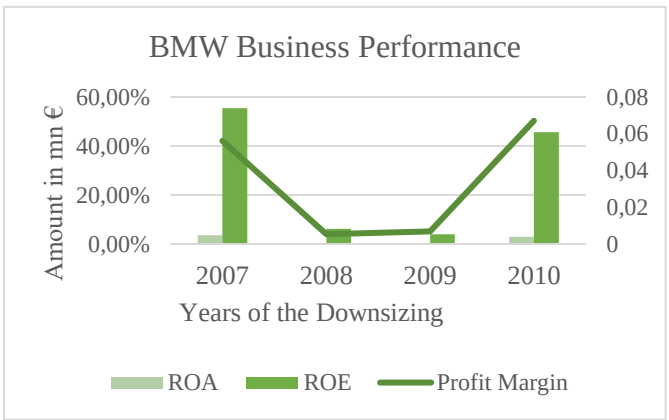
BMW AG is a Munich-based premium car producer and was established in 1918. Bayerische Motoren Werke AG is a manufacturer and seller of luxury cars, and further motor-driven vehicles. The major product portfolio of BMW spans various segments, from luxury sedans to convertibles, sports cars, and touring motorcycles worldwide (Bloomberg, 2018a). The group introduced a strategic program to redirect its business segments and adapt to shifting market demands in 2007, shortly before the global financial crisis. Till 2020, BMW fostered a leading position in the premium car segment, manufacturing, and selling more than two mn cars p.a. Besides, it established a leading market position in the premium e-mobility segment for individual mobility. The program "Number ONE" targeted to increase profitability between eight to 10% (ROCE above 26%) to enhance value long-term by establishing services and profitable product portfolios alongside the more technological futuristic value chain. This process included

the realization of new business models and a strategic transformation of its existing product portfolio inherent with an organizational redirection (BMW AG, 2007).

Shortly after the announcement of the strategic redirection, the company faced a slump in commodity and service markets, especially in the US and Europe orders were called off. Shortly after most Asian countries, especially China, experienced the recession and the declining demand for luxury sedans and sports cars in the second half of 2008 (BMW AG, 2008). The company´s management highlighted the importance of the program in the upcoming crisis during and after the crisis and could forecast the importance of a more dynamic corporate structure for the upcoming period of economic growth from 2010 onwards. Successively, BMW reduced its workforce in 2008 by seven percent (7.498 FTE), while not imposing a hiring freeze. The simple announcement of a RiW more than doubled the year-on-year fluctuation to 5.9%, before another 3.811 employees left the company in 2009. At the end of 2010, the RiW resulted in an 11.24% lower workforce.

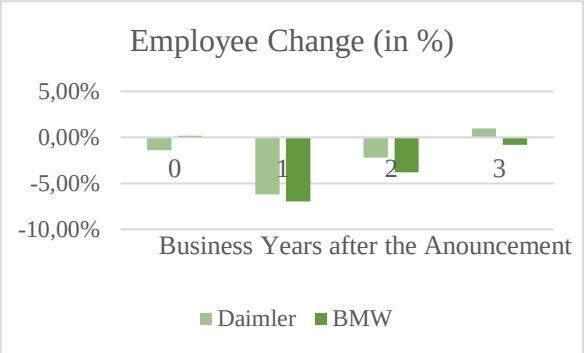


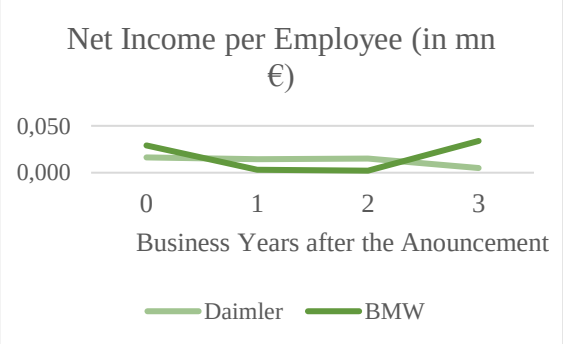
Workforce performance shows a clear downturn between 2007 and 2010: Net income p.e. dropped from €0.029 mn to €0.022 mn in 2009 before jumping to €0.034 mn in 2010. Sales productivity in the meantime rose from 64,15% before the start of Number ONE to 75.49% in 2010, increasing by 17.68% in three years. The economic environment for BMW between 2007 and 2009 was negative due to the global recession, heavily curbing the number of cars sold. The sale of premium cars and motorcycles sunk in 2008 by 4.3% & 0.8%, and in 2009 by 10.4% and 14.4% successively (BMW AG, 2009). In this environment, BMW was able to decrease capital intensity by 13.94% to 57.37% in 2010 from 66.67% three years prior. Further financial metrics do show a comparable trend to workforce performance from 2007 to 2010. First, ROA decreases from 3.54% to 0.21% in 2009, before rising to 2.97% in 2010. ROE develops similar, decreasing by 51.57% from



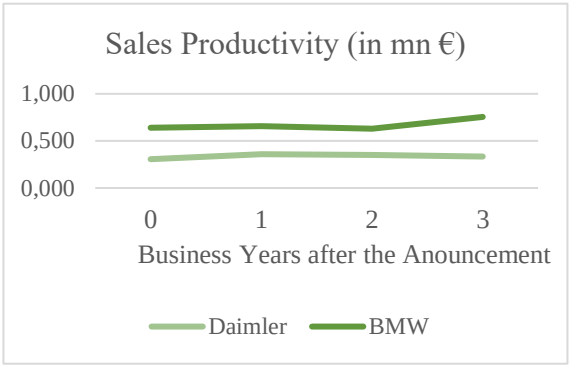
55.49% to 3.92% before rising to 45.63% in 2010. During the strategic restructuring, BMW´s sales increased by 4.45% to €72.058 mn, revenue increased by 7.96% to €60.477mn in 2010. Profit rose by 24.86% to €4.836mn in 2010 while net income rose by 3.19% to €3.234 mn in 2020. Total assets and shareholder equity, both increased during the period. Assets improved by 22.33% to €108.867 mn and shareholder´s equity even rose by 25.50% during the transformation, which featured a RiW of 11.24%. BMW undertook its successful downsizing in a negative economic environment, where the overall financial development was heavily influenced by the recession of 2007/2008 (BMW AG, 2007, 2008, 2009, 2010).

Comparison: Both automotive corporations, Daimler and BMW underwent organizational restructuring in a time when the financial recession occurred, and world car sales heavily dropped in 2008. Daimler began their CORE downsizing in 2005 and finished three years later, at the peak of the financial crisis. BMW´s Number ONE program started in the year before the financial crisis and ended in 2010 when the world economy was rising again. The annual changes in workforce signify the magnitude of the downsizing and have been lower during the year of the announcement for both corporations. Daimler and BMW downsized most employees within the first (6.19% & 6.97%) and second year (2.18% & 3.81%) during the period. The third year shows a slight plus for both the corporation´s workforce. When comparing workforce related indicators net income p.e. and sales productivity, both differ: Daimler´s net income p.e. continuously shrank by €0.011 mn and dropped in the last year of the restructuring to $0.005 mn. BMW´s net income p.e. fell the two years after the announcement from €0.29 mn to €0.002 mn before improving to €0.34 mn at the end of the systemic change. For Daimler, net income fell overall, whereas BMW increased its net income p.e. by €0.005 mn while restructuring. BMW´s outcome for its sales productivity shows a similar trend,

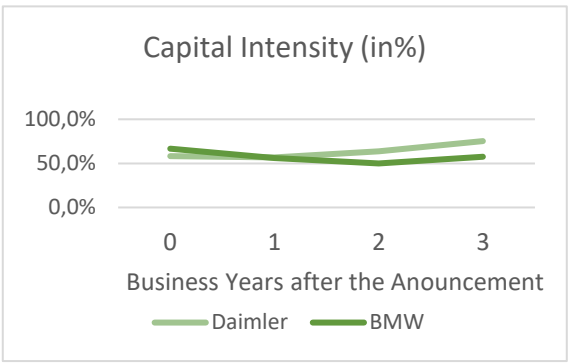


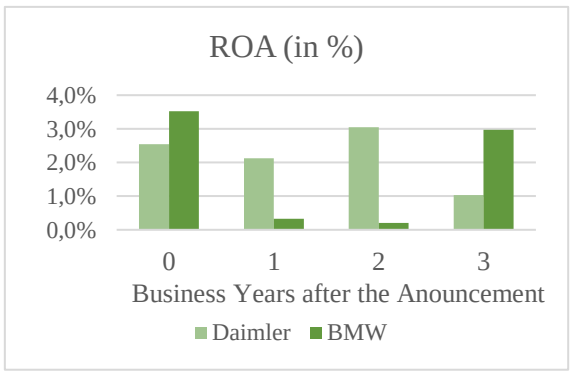


slightly dropping during the restructuring, before increasing at the end of the program. Daimler´s sales productivity could not sustain a positive trend and leveled out after year two of the downsizing. Even though, both companies could increase their sales productivity, Daimler, by 2.7% and BMW by 11.3%.

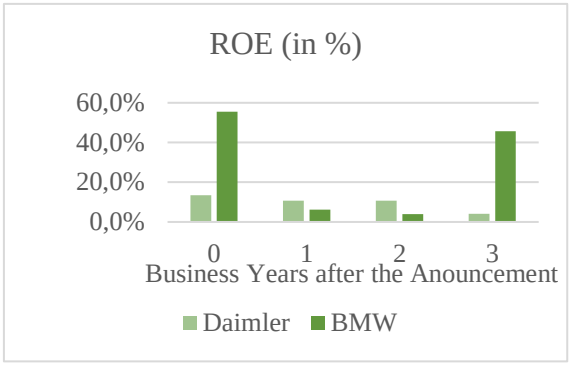


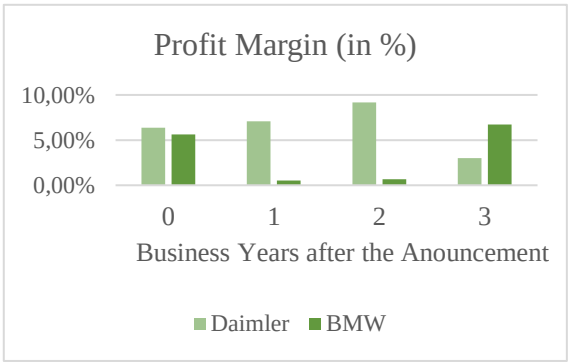
Categorizing the economic situation and industry cyclicity, the capital intensity of both companies is compared: Daimler shows a gradual increase during the period of its downsizing to reach 75.3%, an increase of 17.1%. BMW reduced capital intensity by 9.3% to 57.4% in year three after the announcement. Both corporations introduced their downsizing program in different economic environments: Daimler´s program lasted from 2005 to finish in 2008 during the global recession, whereas BMW started in 2007 and finished the program during the global recovery in 2010. These yields varying effects on the performance of their profitability: Daimler´s ROA starts at 2.5%, decreases shortly in the first year after the downsizing before rising to 3.1% in year two and falling to the lowest value in three years of 1.0% after. For BMW, the drop is by far higher. ROA fell from 3.5% in the year of the announcement to 0.2% in year two and grows to 3.0% in the third year after the announcement. Both companies could not increase their ROA throughout the downsizing.





A similar development can be observed for both companies ROE: Daimler´s ROE slowly shrinks from the announcement year (13.4%) to 10.8% in the first and second year after and fell to a three-year low of 4.2% in the last year of the period. BMW´s ROE shows a large drop the year after the announcement, from 55.5% to 3.9% in the second year after the announcement before jumping to 45.6% in the last year of the restructuring. Both companies ROE fell by around 9.3% while undergoing the downsizing. Lastly, the profit margin steadily grows for Daimler in the analysed period from 6.38% to 9.17% before it fell in the last year to 4.2%, a reduction of 9.26% during the restructuring. BMW´s profit margin follows a similar pattern than ROA and ROE, falling from 5.61% to 0.53% in the first year after the announcement and jumping back at 6.71% in the last year of the program, an increase of 1.1% during the analysed period. Therefore, BMW AG leads the intra-industry comparison and allows to classify its downsizing as more successful.





7.2.2 Downsizing in Banking and Insurance

The economic and overall industrial situation for German banks between 2000 and 2007 needs to be divided into a capital recession till 2004 followed by a banking boom to last till the outbreak of money shortage within the financial crisis of 2007. Overall, balance sheet totals rose from €6.148 BN in 2000 to almost €8.1 bn (7.956bn) in 2008, signaling higher market activity in a positive surrounding (Deutsche Bundesbank, 2017). Macroeconomic evidence of the down- and upturn lies within the changes of the European key interest, and savings rate of private households in Germany. Both can be compared in Appendix 1.6. German banking is on international competitive levels, leaving minimal institutional voids and a high customer penetration (commercial and retail), categorizing the industry as saturated and mature, but continuously disrupted by technical innovation and regulatory loosening. While Postbank reduced human capital within the latter period of economic downturn, Commerzbank fell into times of greater industry turnover and

improved banking performance in the aftermath of the dotcom bubble. The following table gives a summary of the key facts of both downsizings:

Company Name	**Commerzbank AG**	**Postbank AG**
Downsizing Program	Project "Kostenoffensive"	Project "PEOPLE"
Downsizing as a Restructuring Tool • Proactive or Reactive downsizing • Restructuring Mode (Enderwick) • Subcategories (Dewitt) • Subcategories (Charlos & Chen) • Rightsizing	 • Proactive downsizing • Rationalization • Retrenchment • Reinforcement • Rightsizing	 • Proactive downsizing • Rationalization • Retrenchment • Reinforcement • Rightsizing
Strategic Implementation of Downsizing • Archetype • Implementation Strategy • Active vs Passive • Forced Redundancies	 • Reinforcement • Organizational adjustment strategy • Active & passive • With forced redundancies	 • Reinforcement • Organizational adjustment strategy • Active & passive • Without forced redundancies
Downsizing Period	2001 till 2004	2004 till 2007
RiW Magnitude (FTE) 1 year 3 years	 10.228 to 8.697 (14.97%) 10.228 to 9.235 (9.7%)	 26.693 to 25.303 (5.2%) 26.693 to 22.681 (15.03%)

Table 5. Banking Industry Downsizing Comparison; Source: Own Illustration

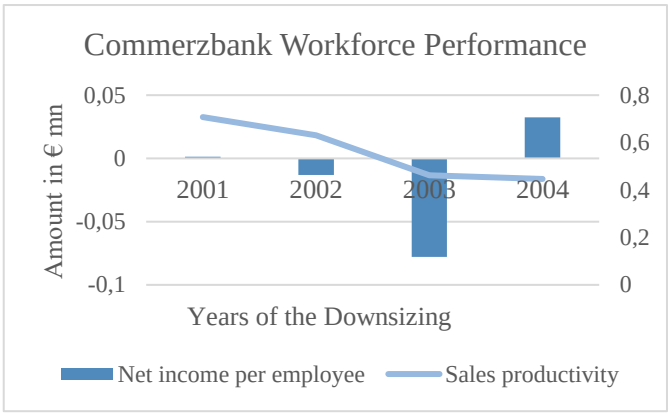
Commerzbank:

Commerzbank AG is a DAX founding member, attracting deposits and offering retail and commercial banking services. The bank offers mortgage loans, securities brokerage, and

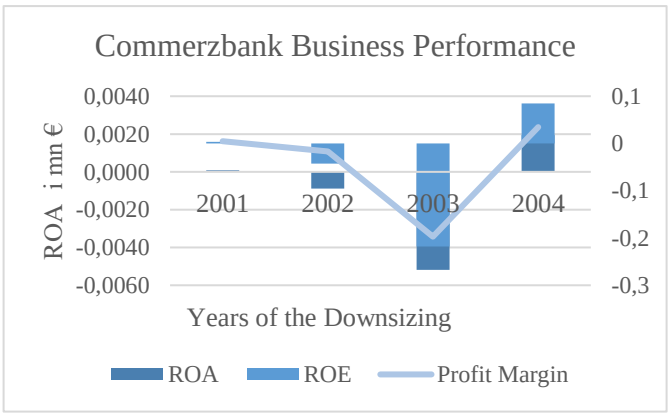
asset management services, private banking, foreign exchange, and treasury services worldwide (Bloomberg, 2018b). It is international active and operates offices in more than 40 countries (2001) to serve its almost 4 mn private and over 0.5 mn business clients. The bank considered itself a Germany centric bank focused on retail, business, and corporate clients, within retail- & investment banking and the obligatory financial market operations to serve these clients. Commerzbank has a long-standing history, developing from a traditional and regional savings bank to a global player totaling to more than half a billion (€501.312 mn) on its balance sheet (Commerzbank AG, 2002).

Commerzbank saw itself in a negative economic environment in 2000/2001 with reduced stock market activity, decreased provision fees and trading income, and a negative macroeconomic environment for banking in Germany. Even though its online business "Comdirect Bank" was the leading online brokerage in Germany, technical banking solutions revolutionized the market in the aftermath of the dotcom bubble. A falling target interest rate, paired with higher savings volumes, versus higher stock trading activity before 2000, left the bank in a rather negative environment, and called for leaner organization and processes (Commerzbank AG, 2001). The company introduced a strategic turnaround program "CB 21" in 2000, as a result of falling margins and pursued a structural cost reduction project "Kostenoffensive". The project aimed to facilitate organizational restructuring over a period of three years till 2003 targeting five core areas: Reduce cost base to increase the bottom line, filter bad loans successively, start a pricing campaign based on cost reduction and margin increase, leaner organizational structure, and spin-off non-strategic business units. Successively, Commerzbank introduced a hiring freeze in the first quarter of 2001 before publicly announcing the reduction of its employee base by 3.400 (or 9.96%) over a period of three years, to antagonize negative company performance. In the first year of the announcement solemnly 522 FTEs could be reduced, while in the second year 2.796 employees left Commerzbank. This was accompanied by a reduction in personnel expenses by 21.07% over the three-year spanning RiW left expenses at €2.420 mn. The advancement was enabled through individual and collective reductions in paid working time, natural fluctuation, internal qualification, partial retirement and group outplacements.

Consequently, net income p.e. could only be increased over the full three years after the downsizing, to €0.03 mn p.e. in 2004. This left sales productivity at a rather low level of 0.44%, down from 0.71% in 2001, a decrease of 37% in total or minus 12.3% p.a. Commerzbank pursued the downsizing in a positively influenced macroeconomic economic setting. In 2001, Commerzbank faced a shocked industry and a phase of market correction with falling inter-banking interest in the beginning. However, the recession´s turning point occurred end of 2001, Commerzbank´s economists claimed the recessions dip has been reached and announced a positive outlook for the next three years (Commerzbank AG, 2001, 2002). As stated, capital intensity in the banking sector is rather low, but Commerzbank could decrease its capital intensity from 5.5% in 2001 to 3.6% three consecutive years after the downsizing. Thus, overall capital intensity could be lowered by 33% resulting in an improved utilization of assets, due to the efficiency project. Further financial metrics showed a negative trend two years following the announcement of project "Kostenoffensive", leveling off in 2003 with an ROA of negative €0.005 mn, the lowest value for Commerzbank, three years before or after the announcement of the restructuring.



By far higher declines are measured for ROE and Profit Margin. In case of ROE, values are falling till they reach negative €0.22 mn in 2003, while the margin fell to a decade low of minus 19.72%, clearly showing signs of the negative business development in 2002/2003 as well as high costs for the turnaround. Even though the drop was significant, all financial results climbed till 2004 concluding in improved levels, compared to pre-downsizing values: ROA improved by €0.00186 mn, while profit margin rose 3.01% and ROE grew from €0.081 mn to €0.085 mn from 2001 till 2004.



The prescribed strategic action turned Commerzbank´s financial performance positive, supporting an increase in profit of €291 mn or 285.29%. Simultaneously, it allowed a decrease in the average assets by 16.66% and fostered a core RiW of 9.96%. The multilayer restructuring was undertaken in a rather difficult industry environment. Still Commerzbank succeeds, showing strong and stable results in all analysed KPIs (Commerzbank AG, 2001, 2002, 2003, 2004).

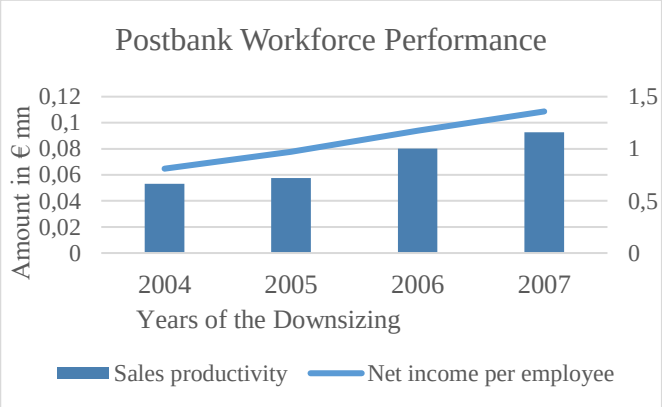
Postbank AG:

Postbank AG is a German bank, providing banking and financial services for retail, business, and corporate clients. The bank gradually increased its span and service portfolio and operates in retail, business, corporate and the financial market segment. The bank grew steadily to become one of Germany´s biggest retail banks, operating over one thousand finance centres all over Germany, including a Luxemburg branch (Bloomberg, 2018d). Postbank´s developed from a state-owned bank of the German Federal Mail to a privatized banking player serving over 15 mn online and offline customers in Germany. The bank could obtain stable financial performance in the period from 1995 till 2001 when the dot-com bubble burst, and stock broking and most transaction banking areas were negatively influenced, reaching a balance sheet total of €133,9 mn. Postbank saw itself in a rather positive economic environment from 2004 to 2006, performing above the industry average in terms of customer acquisition, the introduction of technical banking solutions, and transaction banking. Simultaneously, the company introduced new IT operating systems, leaving a certain portion of its employees outplaced from their position within certain processes (Postbank AG, 2003). Postbank´s board introduced a structural efficiency program in 2001, to bring the bank closer to profitability and margin goals while preparing it for a gradually multi-channel banking transfer in its retail banking and locating the bank as one of the top three corporate banks in Germany.

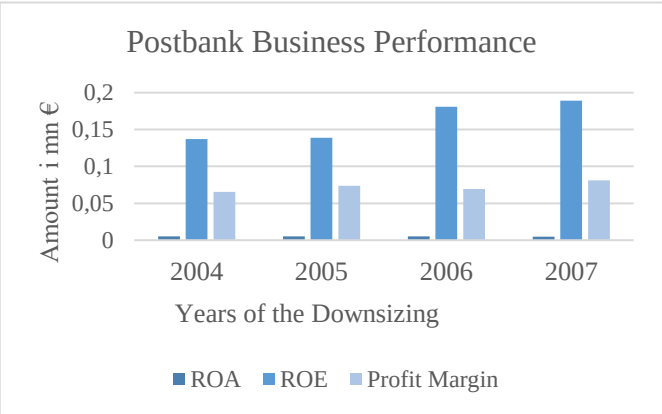
Postbank´s path has been gradually upward and successful since 1995, where organizational structures and processes could be streamlined while organizational and financial slack could be minimized. From 1999 onwards, the bank pursued a turnaround program, planned to streamline operations and set a new focus on transaction banking (Postbank AG, 2001) before RiW were imposed in 2004. Postbank needed a strategic redirection of its HR Management to cope with the changing internal and external demand and growing size of its business. To be “fit for Future” and increase efficiency and quality of HRM from 2004 onwards, employees had to be reduced numerically or moved to

different operations. Optimized organizational structures within the resort of HR were targeted, to be able to tailor workforce adaptations in an increasingly dynamic banking market. Besides, RiW of almost 10% in Germany during the downsizing period, qualitative development capacities were gradually expanded among employees and managers, to cope with increased efforts (Postbank AG, 2003).

As part of the program, labor-related adaptations were publicized in 2000 and finally implemented in 2001. Solemnly 5.2% were downsized within the first year of the Rightsizing (active and passive), gradually lowering employee base and reducing 15.03% (4.012) over a three-year period. Employees, whose position were redundant, were transferred into a limited service and transfer enterprise "interServ" to enable socially acceptable RiW. Net income p.e. for Postbank´s German operations increased steadily from €0.06 mn to €0.11 mn in 2007. Similar developments can be seen for sales productivity, where the amount rose by 75% from €0.66 mn in 2001 to €1.16 mn in 2007.

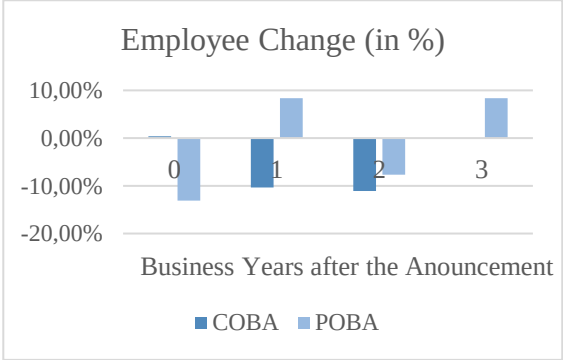


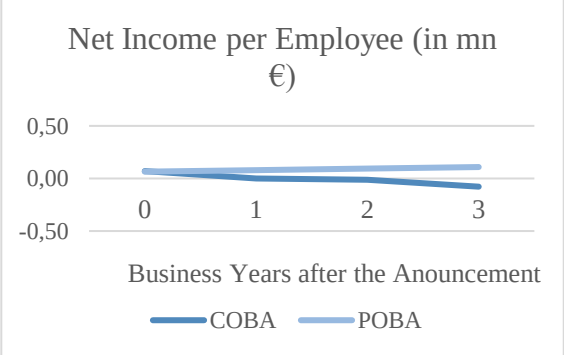
Postbank pursued the downsizing in a positively influenced economic setting with a growing industry and increasing globally spanning networks of banking operations. Capital intensity within the banking sector is comparably low since capital deployed is by far less than for other industries. Postbank increased its capital intensity from 4.04% in 2004 to 4.32% three years after the downsizing, even though the year after showed a drastic reduction in capital intensity, falling to a low of 3.98%. Financially, Postbank could increase all financial metrics, except ROA, here a reduction of 2.11% between 2001 and 2004 occurred. This can be explained due to increasing assets, as part of Postbank´s overall growth strategy, throughout all analysed business years. ROE and Profit Margin allow for a successful transformation of organizational structures: While ROE increased 38% from €0.137 mn in 2001 to €0.189 mn, profit margin jumped 24% from 6.6% to

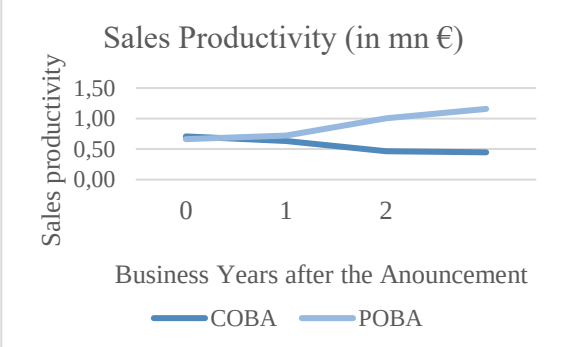


8.1% in 2004.The outcome is a positive downsizing within the given timeframe. Postbank pursued a strategic organizational transformation, and increased profits exactly by 100% in a rather positive industrial environment between 2004 and 2006, before going IPO in 2004. The bank continued its efforts to be “fit for the Future”, in a positive economic environment until the financial crisis in 2007 (Postbank AG, 2001, 2003, 2004, 2005).

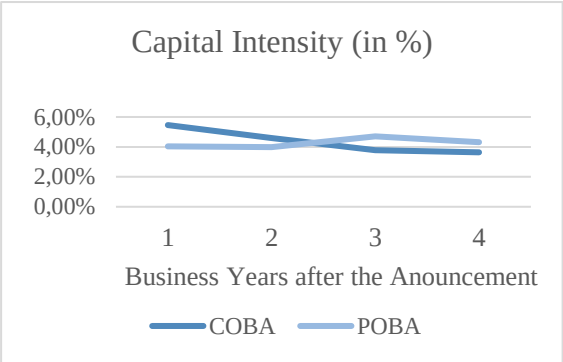
Comparison: Both corporations heavily downsized their operations during the years after the announcement. The annual employee change is one of the driving forces behind the development of profitability (Moore & Sonan, 2014). Overall, Postbank decreased the number of employees in two consecutive years of the four analysed, while Commerzbank reduced the workforce in two non-consecutive years. Commerzbank underwent a RiW of 10.33% and 11.11% in the two years following the announcement, while Postbank reduced overall FTEs in the year of the announcement by 13.09% and year two after the announcement (7.69%), while gaining some 8.33% in the year between and after, due to portfolio expansion. Net income p.e., and Sales productivity result in similar developments for both counterparts: Postbank could increase both KPIs over the three-year measurement period to gain a plus of €0.05 mn to €0.11 mn in sales productivity, and even a plus of €0.5 mn in net income p.e., thus, both indicators signal a positive performance. In the meantime, Commerzbank could not perform comparably and even decreased both values. Net income p.e. decreased by €0.15 mn to a negative productivity of €0.08 mn in the last year of the downsizing. However, Sales productivity for Commerzbank decreased relatively less, falling to €0.45 mn p.e., down from €0.71 mn, three years before.



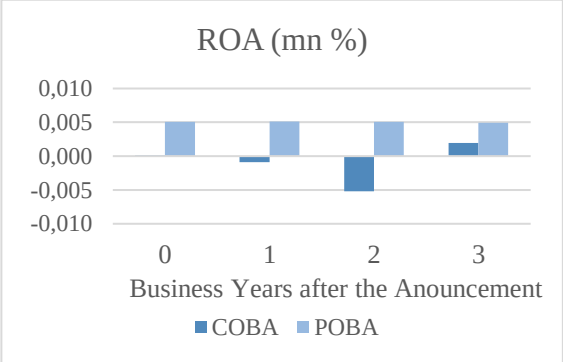


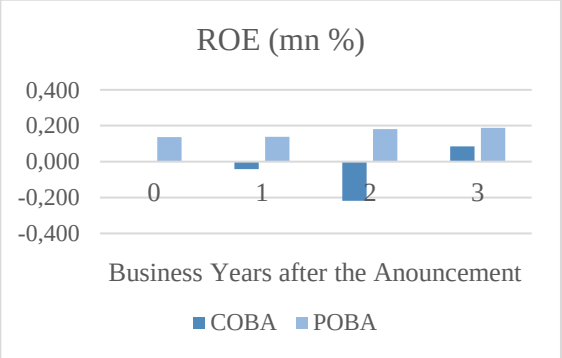


To categorize the economic situation and industry cyclicity, the company's capital intensity is compared: noticeable about Commerzbank is its shrinking intensity from 5.46% to 3.64. Postbank slightly increased its capital intensity from 4.04% to 4.32% in the third year after the prescribed rightsizing. Postbank´s restructuring took place in a rather difficult economic setting, while Commerzbank could undergo its transformation in a more positive economic setting.

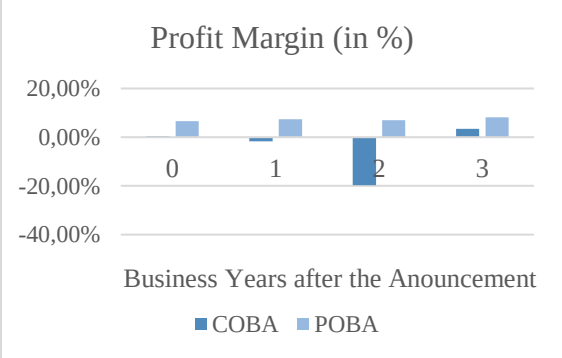


When comparing both programs, we see differences in the performance of profitability: ROA developed for Postbank slightly negative, thus overall stagnating at €0.005 mn, while Commerzbank´s ROA first developed negative till a turning point of €-0.005 mn in year 2, before rising in the third year after the Rightsizing announcement. ROE for both companies shows similar results than ROA with a rather stagnating performance of Postbank´s return between €0.14 mn and €0.19 mn in the last year of the program "fit for Future". Commerzbank on its behalf, shows a dip in return, before coming back into profitable levels in the third year after the downsizing. Commerzbank´s downsizing let to an ROE of €-0.218 mn in year two before jumping to €0.84 mn in the last year of the program "Kostenoffensive".





Lastly, profit margins develop similar to the previous two indicators, showing overall growing margins for Postbank from 6.56% up to 8.13% in the three years after the announcement. Commerzbank shows a dip of -19.72% in year two, comparable to ROE and ROA development. Year three´s



margin with 3.46%. is around 7.7 times higher than in the announcement year. Consequently, Postbank´s downsizing is classified as the more succesfull organizational restructuring.

7.2.3 Downsizing in Energy Corporations

The economic situation for energy corporations in Germany between 2000 and 2015 is characterized by the changing forms of energy source linked to the energy transformation, prescribed by the German government (Destatis, 2018), and the economic recessions after 2000 and 2007. At the beginning of 2000, energy corporations were in a gradually changing but stable market environment, mainly influenced by changing resource prices and slow economic stimulus including stable energy consumption and slow price increase. While the first years after 2000 were mainly used for national and international consolidation, times were rougher after 2005 with the upcoming energetic transformation, the target reduction in CO^2 emission and new energy sources. Energy corporations needed large sums for restructuring and dismantling of prior heavily utilized power sources such as coal and atomic power plants in the second part of the period (Lehr et al., 2008). Increasing energy prices in a more transparent market, enabled by new entrants, heated the playing field of former large corporations. Besides, the energy industry in Germany was on a leading edge, comparable to international levels, and could be categorized as mature due to a phase of consolidation throughout 2000 till 2015. The following table gives a summary of the key facts of both downsizings:

Company Name	**RWE AG**	**E.ON AG**
Downsizing Program	Multi Energy Multi Utility Cost reduction program	Eon 2.0
Downsizing as a Restructuring Tool • Proactive or Reactive Downsizing • Restructuring Mode (Enderwick) • Subcategories (Dewitt)	• Proactive downsizing • Rationalization • Downscoping	• Reactive downsizing • Rationalization & Internationalization • Downscoping

• Subcategories (Charlos & Chen) • Rightsizing	• Reinforcement • Rightsizing	• Reinforcement • Rightsizing
Strategic Implementation of Downsizing • Archetype • Implementation Strategy • Active vs Passive • Forced Redundancies	 • Reinforcement • Organizational adjustment & Systemic strategy • Active & passive • With forced redundancies	 • Reinforcement • Organizational adjustment & Systemic strategy • Active & passive • With forced redundancies
Downsizing Period	2001 till 2004	2011 till 2014
RiW Magnitude (FTE) 1 year 3 years	 72.191 to 55.407 (-23.2%) 72.191 to 37.782 (-47.7%)	 35.133 to 31.548 (-10.2%) 35.133 to 22.290 (-36.56%)

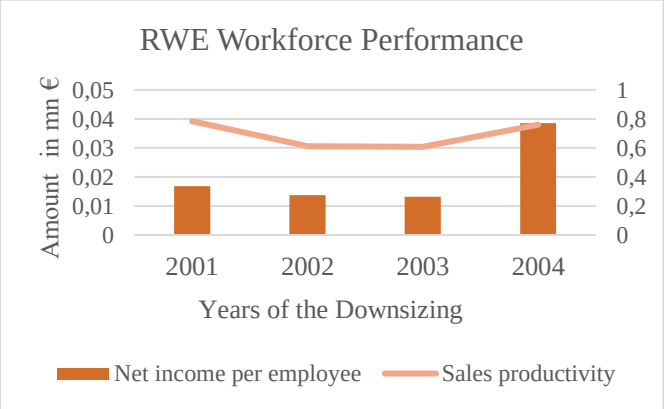
Table 6. Energy Industry Downsizing Comparison; Source: Own Illustration

RWE AG:

RWE AG is a leading German energy and utility corporation that operates mainly in Europe but was active in most parts of North America. It generates, distributes, and trades electricity to municipal, residential, commercial, and industrial customers. Besides, RWE produces natural gas & oil, mines coal, and operates in gas & water distribution and delivery. RWE operates mainly in Europe (Bloomberg, 2018f).

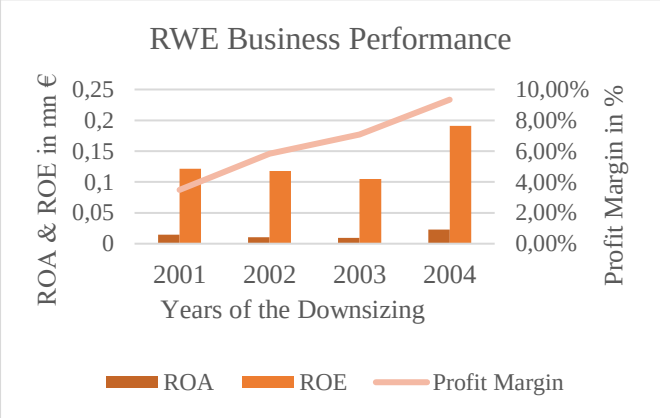
The company grew to be one of three leading energy corporations in Germany through continuous acquisitions and reached a leading position when merging with VEW, a Dusseldorf based energy distributor and network operator, in 2000/2001, to improve its business segment energy, gas, and recycling. Prior, a phase of national and international acquisitions, e.g. Thames Water in the UK, allowed RWE to focus on its two main cores: multi utility and multi energy (RWE AG, 2001). The consolidation was fostered by a reduction in non-core sectors such as engagements within telecommunication or oil & gas refinery and distribution. After 2000, RWE consequently implemented a new corporate structure and increased efficiency throughout a streamlining program to reduce

costs (“Kostensenkungsprogramm”) and overhead till 2004. The downsizing succeeded a period of increase in workforce till 2000 mounting at 114.557 employees within Germany. The active and passive RiW shrank workforce simultaneously to downsize from 80.205 in 2001 by 12.500 (18,46%) till 2004 in Germany. Major reductions successively happened in 2001 (4.700), 2002 (4.003), and 2003 (3.914) (RWE AG, 2001, 2003). RWE utilized two applications to reduce its employee base, firstly streamline process and structures to increase efficiency within its new and consolidated corporate structure, and secondly reduce operational workforce within entities to lower operating expenses by 15 % from €45.542 mn in 2000 to €38.682 mn in 2004. With a shrinking workforce, net income p.e. developed negative till 2003 (-29%) before jumping to 0.386, almost tripling in a year. The jump occurred mainly due to the deconsolidation of business entities and the realization of two stock blocks (Heidelberger Druck-maschienen & Hochtief), but also due to lower personnel expenses. Sales productivity shows a dip of around 22% within 2002/2003 as well, but increases to pre-downsizing levels in 2004, reaching €0.76 mn, just 2.6% lower than in 2001.



The economic environment for RWE´s downsizing seems rather positive since no binding costly and obligation to transform the energy business occurred before 2005 and the corporation could restructure proactively after a period of consolidation to be more aligned with future market demand. The board of directors and management were both tuned positive about the improving market environment from 2002 onwards (RWE AG, 2005). Capital intensity in the energy sector takes a rather high value due to large-scale investments, rather high maintenance cost and long-lasting investment horizons. RWE could reduce its capital intensity from 64.4% in 2001 to 42.6% in 2004, lowering it by more than 50%.

Financial metrics showed similar developments in the analysed period: ROA decreased from 2001 to 2003 by 43.9% to stand at €0.01 mn but increased the year after to €0.022 mn. ROE on its behalf shows similar results steadily decreasing by 13.33% till 2003 to level out at €0.105 mn in 2004, increasing by 82% to €0.19 mn. However, RWE´s profit margin shows a clearer upward trend throughout the overall downsizing and restructuring, almost tripling from 3.49% in 2001 to reach 9.34% in the financial year 2004. While sales and revenue shrank in a year on year comparison by 32.99% and 18.6% from 2001 till 2004, RWE´s profit increased by 79.35% and net income could improve by 58.30%. RWE´s shareholder equity only increased marginally by 0.58% until 2004.



During RWE´s restructuring, a cost reduction, inherent to a RiW, enabled the corporation to improve its financial metrics above pre-downsizing values. The downsizing took place in a rather positive environment whilst 2001 was the year after the 2000 recession and energy corporations were lesser influenced compared to technological or financial institutions. RWE succeeded in consolidating its prior acquisitions and portfolio reorganization. It downsized successfully in Germany reducing its workforce by 18.46%, while increasing its average assets by 23.06% (RWE AG, 2001, 2003, 2005).

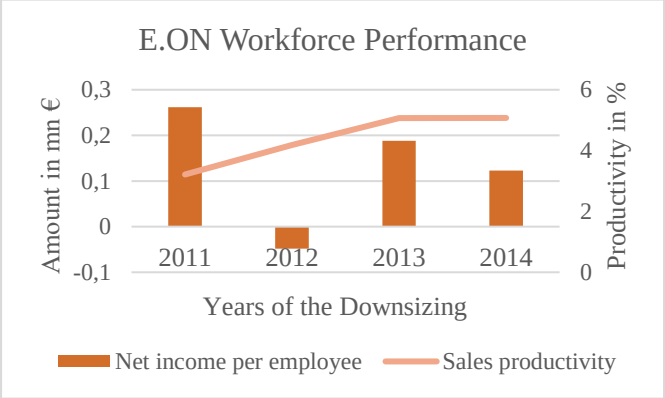
E.ON AG:

E.ON SE, former E.ON AG, is a German based energy company operating in Germany, Europe and overseas. Founded in 1923 and still based in Essen, Germany, its core business is built around energy networks, customer solutions, and renewables. Besides energy distribution to public entities and residents, as well as small, medium, and large-sized enterprises. In its renewables unit, E.ON manages renewable assets, offers services for maintenance and consulting, and holds strategic partnerships for electric vehicle charging infrastructure, grid services, and energy storage solutions (Bloomberg, 2018e).

The company introduced a reactive restructuring in 2010, announcing the official start of "E.ON 2.0" in 2011. The energy company was largely affected by falling commodity prices, the aftermath of the financial crisis in 2007/2008, and the energetic transformation accompanied by regulatory changes in the energy market. Aiming to become a leading

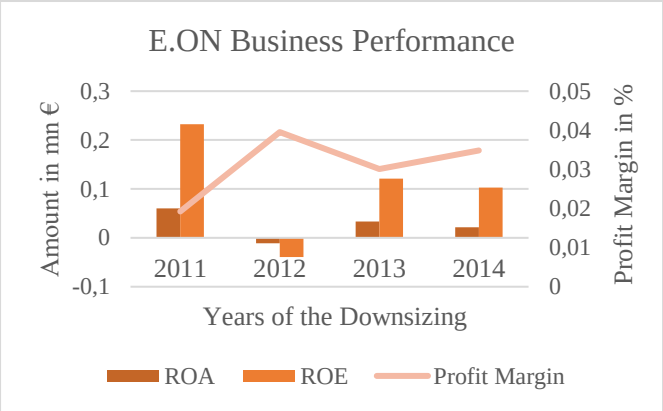
renewable energy corporation, in- and outside Germany, E.ON heavily invested in renewable assets and built a service portfolio around these future growth sectors. Consequently, structural changes and organizational downsizing was inevitable, as determined by the board (E.ON, 2011). E.ON´s consequent and active transformation was accompanied by a centralization of supporting functions and should decrease variable cost by €2 bn to a maximum of €9 bn in 2014. Major adaptations were undertaken in 2011 and 2012, to increase operational efficiency, and support cross-selling opportunities between entities to allow for a sustainable increase in short-term performance and secure long-term competitiveness. As a result, costs should be reduced by lowering personnel expenses and optimizing pension reserves (E.ON, 2013).

Thus, the amount of personnel deployed decreased by 36.56% in Germany, taking active and passive downsizing measurements and structural changes into account. The number of employees fell from 35.133 inside Germany in 2011 to 22.290 at the end of the fiscal year 2014. Major reductions occurred from 2012 (-3.585) and in 2013 (-7.919), even though the high reduction in 2013 was only partly due to implications of E.ON 2.0 and partly derived from the sale of E.ON´s service entity Arena One.



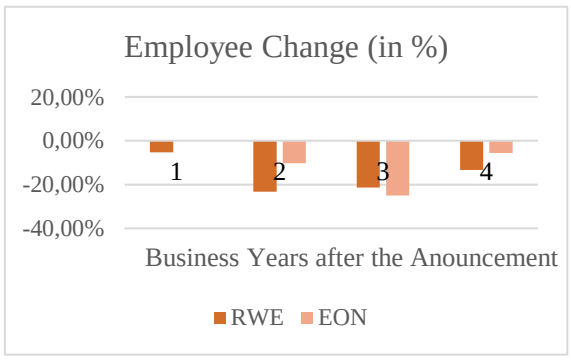
Net income p.e. dropped 52.99% from 0.262 in 2011 to 0.123 in 2014, a sign of continuous restructuring. Sales productivity in contrast increased by 57.81% reaching 5.06% in 2013 and 5.07% in 2014 showing the effects of increased p.e..

The economic environment for E.ON between 2011 and 2014 was rather negatively influenced. The regulatory driven market environment and energetic transformation weigh heavily on the company throughout its restructuring. Costs or tax for conventional energy production increased in some countries, while the economic activity was seen as rather low from 2010 till 2012 by the board of directors (E.ON, 2012). In this environment, capital intensity rose by 20% to 88.82% in 2014, compared to 73.89% three years prior.

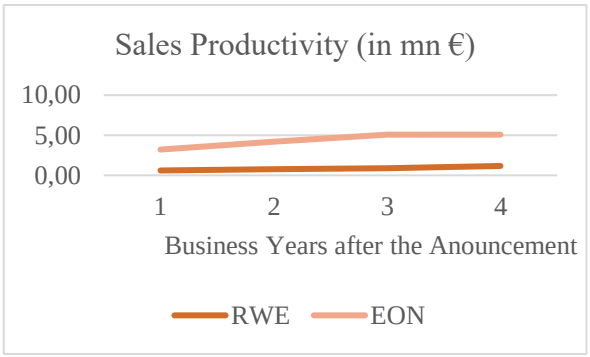


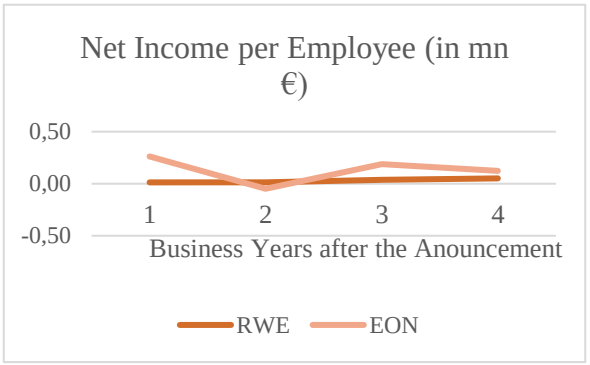
Further financial metrics do not show consistent positive trends from 2011 until the end of the downsizing in 2014. ROA decreases throughout the period by 63.72% from 6.1% to 2.2%, with a negative ROA only in 2012, dropping to negative 1.1% in 2012, the year with highest provisions. ROE decreased to a smaller extent of 55.77% from 23.21% in 2011 to 10.27% in 2014. Similar to the ROA, the ROE for 2012 was negative at 3.94%. E.ON´s profit margin rose over the whole period of the downsizing from 19.25% to 34.85%, increasing by 81.05% in the analysed period. During the downsizing, E.ON´s sales increased by 0.12% to €113.095 mn, revenue increased by merely 1.45% to €114.592 mn in 2014. Profit rose by 81.28% to 3.941 in 2014 contrary to net income, which shrank to €2.743 mn in 2014. Total assets and shareholder equity, both decreased during the period. Assets went down 17.78% and shareholder´s equity even fell by 31.57% during the downsizing, which featured a RiW of 36.66% in Germany. E.ON undertook its downsizing in a rather negative economic environment, during a time of high regulatory impact on energy market and companies. The overall development is not influenced much by the recession 2007/2008 even though, the board of directors classifies the situation during the restructuring as tight (E.ON, 2011, 2012, 2015).

Comparison: The annual employee change, seemed to be one of the driving forces behind the changes in financial indicators: RWE downsized constantly above 5% p.a. with a maximum of 23.25% in the second and 21.35% in the third year of the announcement, totaling 47.7% of its German employee base. E.ON downsized in the meantime 36.56% of its German workforce. Since E.ON 2.0 started in the second half of 2011, the downsizing effects in the fiscal year 2011 are close to zero. However, in the two years following the announcement, large-scale RiW by 10.20% in year two, and even 25.10% in year three were undertaken.

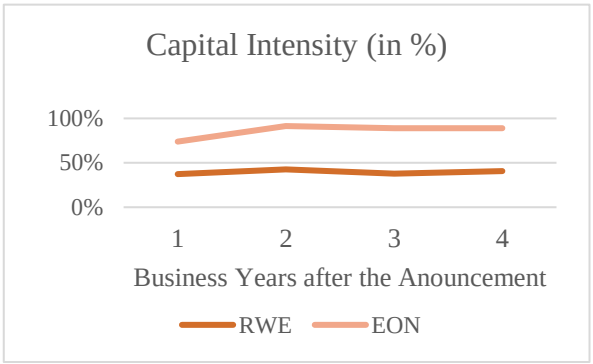


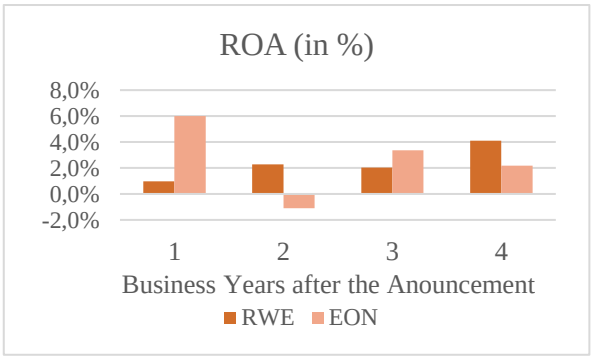
RWE´s and E.ON´s workforce-related downsizing KPIs show mixed results. Sales productivity and net income p.e., develop similar for both energy companies: RWE could increase its sales productivity by 92% to €1.17 mn, up from €0.67 mn and grew its net income p.e. in the same period from 1% to 5%. E.ON´s sales productivity rose in the meantime from €3.22 mn to €5.07 mn, and its net income p.e. fell from 26% to 12%, a rather negative overall result.





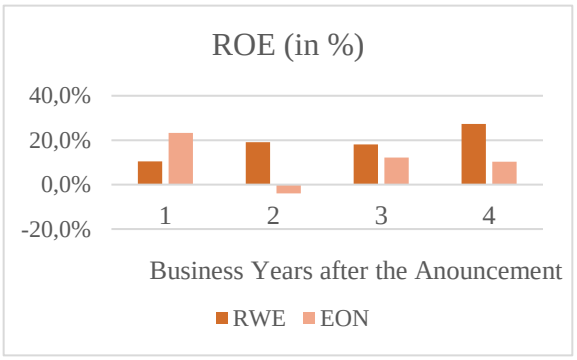
Categorizing the economic situation and industry cyclicity, the capital intensity of both companies is compared: Both show gradual improvements during the period of downsizing. RWE increased capital intensity by three percent to 40.6% in year four after the announcement. E.ON even increased capital intensity by 15% to 88.8% in the last year of the prescribed downsizing. Both corporations introduced their downsizing program in different economic environments, RWE from 2001 till 2004 and E.ON from 2011 till 2014, allowing for varying effects on the performance of profitability:

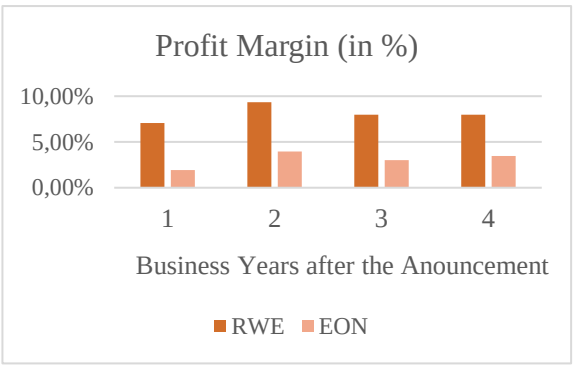




RWE´s ROA shows a constant positive trend from 1.1% to 4.1% during its downsizing period, whereas E.ON´s ROA fell from 6.6% to 2.2% in its three-year downsizing program “E.ON 2.0”.

ROE for both companies shows similar outcomes than ROA and a positive trend for RWE´s profitability. ROE on its behalf grew from 10.5% to 27.3% in the three years after the announcement. On the other side, E.ON shows mixed developments for its ROE during the downsizing period, even reporting negative 3.9% ROE in year two of the downsizing. Profit margin only partly holds similar results than ROA and ROE. RWE also shows a positive trend in its profit margin gradually increased from 1.92% to 3.48%. However, E.ON´s profit margin increased in the year after the downsizing from 7.08% to 9.34% before falling to 7.99% by the end of the period. Successively, RWE´s downsizing program is classified as more successful than E.ON´s.





7.3 Downsizing Inter-Industry Case Comparison

In a third step, downsizings are analysed inter-industry, based on the selected qualitative findings and metric KPI changes in percentage over the three-year period. This serves to answer the third research question: "*How do DAX downsizers perform within an inter-industry comparison in Germany?*" and is derived from the previous assessment in chapter 7.2. exhibited in the following section:

Inter Industry Case Comparison

		Cases					
Industry		Banking & Insurance		Energy		Automotive	
Company		Commerzbank	Postbank	RWE	E.ON	Daimler	BMW
Name of the Program		Kostenoffensive	PEOPLE	Multi Energy Multi Utility	Eon 2.0	CORE	Number ONE
A	Downsizing as a Strategy						
A.1	Proactive or Reactive Downsizing	Proactive	Proactive	Proactive	Reactive	Reactive	Proactive
	Restructuring Mode (Enderwick)	Rationalization	Rationalization	Rationalization	Rationalization & Internationalization	Rationalization	Rationalization & Internationalization
A.2	Subcategories (Dewitt)	Retrenchment	Retrenchment	Downscoping	Downscoping	Retrenchment	Downscaling
A.3	Subcategories (Charlos & Chen)	Cost cutting	Cost cutting	Revenue refocusing	Revenue refocusing	Cost cutting	Revenue Refocusing
A4	Rightsizing	Rightsizing	Rightsizing	Rightsizing	Rightsizing	Rightsizing	Rightsizing
B	Strategic Implemen-tation of Downsizing						
B.1	Archetype	Reinforcement	Reinforcement	Reinforcement	Reinforcement	Reinforcement	Reorientation
B.2	Implementation Strategy	Organizational adjustment strategy	Organizational adjustment strategy	Organizational adjustment & Systemic strategy	Organizational adjustment & Systemic strategy	Organizational Adjustment	Organizational adjustment & Systemic strategy
B.3	Active vs Passive	Active & Passive	Active & Passive	Active & Passive	Active & Passive	Passive	Active & Passive
B.4	Forced Redundancies	With forced redundancies	With forced redundancies	With forced redundancies	With forced redundancies	Without forced redundancies	With forced redundancies
C	Workforce Performance						
C.1	Total Employee change	-20,32%	-7,69%	-47,70%	-36,56%	-7,36%	-11,24%
C.2	Net Income per Emplyee	-210,80%	67,85%	271,53%	-52,99%	-69,41%	16,26%
C.3	Sales Productivity	-36,88%	74,81%	92,73%	57,81%	8,73%	17,68%
D	Industry Performance						
D.1	Economic situation	Positive	Positive	Positive	Negative	Negative	Positive
D.2	Capital Intensity	-33,35%	6,98%	8,85%	20,22%	29,35%	-13,94%
E	Business Performance						
E.1	ROA	2171,98%	-2,11%	328,24%	-63,72%	-59,27%	-15,64%
E.2	ROE	2210,46%	37,90%	159,32%	-55,77%	-68,86%	-17,77%
E.3	Profit Margin	666,07%	23,95%	12,82%	81,05%	-53,12%	19,54%
Overall Success							

Table 7. Inter-Industry Case Comparison; Source: Own Illustration

The table summarizes all industries analysed including directly competing companies and their downsizing programs. Firstly, the classification of downsizing strategies with modes and subcategories are compared in section A. Secondly, the downsizing implementation for all companies favoring archetypes, implementation strategies and the reduction path are listed in section B. Thirdly, workforce downsizing KPIs are measured in section C. Fourthly, the economic outlook and changes in capital intensity are outlined in D, before, fifthly, business performance is compared in section E.

The strategic classification behind the inter-industry analysis shows, there are as many proactive than reactive downsizings and the ratio is exactly one per intra-industry sample. For restructuring modes, according to Enderwick (1989), two-thirds are based on rationalization, while one third includes an additional internationalization. Subcategories according to Dewitt are divided equally into retrenchment and downscoping. Here, both banking cases utilize retrenchment, while both energy cases utilize downscoping, and only automotive cases mix both subcategories. The same diversification holds when analysing subcategories according to Charlos & Chen (2002): banking applies cost cutting, energy cases apply revenue refocusing, and automotive applies both subcategories. For all cases, the definition of rightsizing can be applied, since none of the cases does downsize above the self-defined targets in their annual reports. Thus, Rightsizing will not play a role in the consecutive formulation of propositions, whilst no effect could be determined.

When comparing the different aspects of the downsizing implementation among different industries, 83,33% choose a reinforcement, the less radical approach of both. In only one case evidence could be found for reorientation. Pure implementation strategies are fair divided between organizational adjustment and a combination of organizational adjustment and systemic strategy were no clear border can be drawn since the strategy holds elements of both. A distinct finding for the RiW is that almost all analysed cases mix active and passive reductions throughout their downsizing. The question if reductions were forced or could be handled without forced reductions can be answered with 83.33% used forced reductions, while only one case could achieve the target, without any evidence for forced RiW. Subsequent, workforce downsizing and workforce performance are examined. The span of total employee change in percentage is large, from -7.69% up to -47.70% throughout the full period of three years after the downsizing announcement. The arithmetic mean of all cases results in an average downsizing of -21.28%, two downsizings are below 10%, and always one is in the next 10% steps. Energy concludes

the greatest employee changes, with the highest values, both above 36%. Changes in the net income p.e. vary from negative 201.08% to positive 271.35%, averaging arithmetically at 3.74%. A clearer picture appears, comparing sales productivity. One out of six cases show a negative development, thus the average stands at a plus of 35.81% over the three-year period. Energy identifies with the greatest improvements in sales productivity, followed by automotive.

Next is industry performance with a clear split in negative and positive economic surroundings throughout the downsizings. Here, positive and negative environments are equal among the three industries. Capital intensity, the second indicator for industry performance shows mixed results, including two reductions in capital intensity and four increases in capital intensity, where energy corporations increased capital intensity in both cases. The average lies at a growth of 3.02% and signifies, that more capital needs to be allocated to operations than before, or a decrease in efficiency occurred.

Lastly, business performance among the six cases determines a mixed picture of results. Commerzbank shows increases due to the transition from recession to boom, thereby distorting all result of business performance. ROA develops positive for only two companies, and automotive is the single industry, reducing ROA in both cases. An even split occurs measuring ROE, where one half shows a positive and one half a negative development. Interestingly, banking could increase its ROE in both cases and automotive decreased in both cases, even though the increase in banking is much larger than the decrease in automotive. Lastly, the profit margin pictures a broader increase in business performance. 83.33% of cases develop positive and increase their profit margin over time. One out of six profit margins fell by -53.12%, while the arithmetic average of the sample shows a clear improvement of 125.05%. If we exclude Commerzbank´s drastic increase, the developments for ROA (-35.19%), for ROE (-26.12%) and Profit Margin (16.68%) are more comparable to prior studies (Chalos & Chen, 2002; Munoz-Bullón & Sánchez-Bueno, 2008).

Thereafter, the inter-industry comparison brought mixed performance for net income p.e., while the comparison for sales productivity shows a clear positive trend. Same counts for capital intensity within the industry performance, where an increasing capital intensity is derived from the comparison. Numerically, ROA decreases in four out of six cases but does not show a clear trend, except for automotive. However, ROE develops positive in four out of six cases and is completely positive for the banking industry. Profit margins increase in the banking and energy industry, while automotive shows mixed outcomes.

To derive with overall results towards the success or failure of a downsizing, only those downsizings that increased more than half of their indicators are counted as successful, shown in green at the end of the table. Therefore, four out of six cases downsized successfully in the respective evaluation. A similarly mixed result occurs when comparing solemnly positive and negative KPI developments. We can conclude, that 20 of the 36 KPIs developed positive, what accounts for 56% of KPIs. Thus, an overall slightly positive trend of financials during the Downsizing is visible:

n = 6	Positive KPI	Negative KPI	% Positive KPIs
Net Income p.e.	3	3	50,00%
Sales Productivity	5	1	83,33%
Capital Intensity	2	4	33,33%
ROA	2	4	33,33%
ROE	3	3	50,00%
Profit Margin	5	1	83,33%
∑	20	16	56%
%	56%	44%	1

Table 8. KPI Development During Downsizings; Source: Own Illustration

8 Downsizing Propositions for German Corporations

In the following chapter, propositions are developed from the analysed results. In total five propositions, including three sub-propositions are developed. These examine the downsizings, its effects on profitability, and its success in the geographic context. Propositions are constructed step by step, starting from the impact of "Downsizing as a Strategy" including the defined and analysed strategic classifications of downsizing. These are structured into proactive or reactive downsizings, and the downsizing subcategory according to Dewitt as well as according to Chalos & Chen. Consequently, the impact of "Downsizing Implementation" components impact, namely implementation strategies, active vs passive, and with or without forced redundancies, are utilized to establish propositions. Lastly, propositions based on workforce reduction and economic situation, including all relevant aspects of the prior analysis, combine the set of factors of downsizing on profitability for German MNCs.

8.1 The Strategy Behind Downsizing Matters

The division of downsizing into proactive and reactive approaches show similar outcomes on a corporate restructuring as well on organizational restructuring level. Companies that

utilize a proactive downsizing approach do perform better than companies underlying a prescribed or reactive downsizing in the German context. This finding is congruent with Love and Nohira´s (2005) analysis of cost reduction and financial performance of pro- versus reactive downsizers:

Proposition 1) Proactive downsizers in Germany show a better financial performance compared to reactive downsizers.

In the analysed sample, the positive effect of proactive downsizing is realized by comparing successful with unsuccessful downsizing. All as proactive classified downsizings are successful while none of two reactive downsizings are. Besides, when taking capital intensity and profit margin as an indicator for profitability, the same picture establishes. Love & Nohira (2005) prove similar results with ROA and SGA expenses to derive with better performance of proactive downsizers.

Proactive downsizing occurs oftentimes in a positive economic environment, that benefits corporations in a way that they will have a better environment to improve profitability versus a negative economic situation. In the respective analysis, all companies downsizing during positive economic circumstances showed an increase in profit margin above their direct industry counterparts, indicating a higher efficiency and thus a higher profitability. Whereas, sample companies that underwent a reactive downsizing in a negative economic environment increased profitability to a lower extent. They increased their capital intensity and showed the least improvement in ROE, during the restructuring. These results support prior findings on the impact of proactive downsizings and the economic environment, including recessions in and outside a singular country (Chen et al., 2001).

8.2 The Implications of Revenue Focusing and Downscoping

Besides the divestiture of approaches, different subcategories classify the downsizing and respective relations. For all companies combining cost cutting and retrenchment, the magnitude of reduction was lower than for the subcategories of revenue refocusing and downscoping. Since retrenchment and cost cutting clearly target a cost reduction, the magnitude of their RiW is smaller in Germany. This is feasible due to the incurred cost for HR related downsizings in Germany as stated in chapter 4.6.5. The cost of RiW is much higher in Germany, compared to other countries such as the USA because severance pay, or compensation packages are legally binding. This, in turn, restricts German

companies in the usage of downsizing as a fast and easy way to reduce cost, not serving as a fast possibility to increase profits:

Proposition 2a) Downsizings categorized as retrenchment (Dewitt, 1998), and cost cutting (Charlos & Chen, 2002), downsize less than companies that apply downscoping (Dewitt, 1998), and revenue refocusing (Charlos & Chen, 2002) in the German context.

This finding is undermined by the fact, that the development for capital intensity within the analysis is mixed. While downscoping and cost cutting lead to the highest reduction in capital intensity, it was accountable for the largest increase simultaneously.

Thus, the expected cut in the cost base by instant RiW-related costs (Gandolfi, 2013) cannot be continued to an expected increase in profitability. Therefore, the quick solution for an increase in profitability inside the geographic frame will not be retrenchment and cost cutting.

Even though the RiW for retrenchment and cost-cutting combinations are lower in the sample, it does not show a contrary development for profitability in the subcategories downscoping and revenue refocusing. This development includes the assumption, that lower RiW lead to more profitability, due to lower costs for the RiW. When comparing the magnitude of a downsizing in chapter 4.6.6, the magnitude does show a negative correlation with post-downsizing performance.

Proposition 2b) Downsizings that are categorized as downscoping and revenue refocusing do not result in a better financial performance than applying cost cutting and retrenchment.

Downscoping and revenue refocusing companies did downsize with a lower magnitude, as the combination stands for a clear focus on core operations. In the country-specific frame, none of the groups performed purely successful or unsuccessful downsizings. Even though sales productivity and profit margin increased for retrenchment and cost-cutting companies, there is no clear evidence or direct correlation between the subcategory and higher profitability.

In contrast to Farrell and Mavondo (2005), the findings of this study do not show any clear subcategory winner in terms of positive effects on profitability. No weak correlation between cost cutting and financial performance could be established and no clear mid- to long-term effects on corporate profitability could be proven.

Additionally, this does not support the opinion that cost cutting strategies are less efficient than revenue refocusing by Chalos & Chen (2002). In the analysed sample, none of the subcategories reached a clear and constant increase in all KPIs.

8.3 Downsizing Implementations

Taking a closer look at implementation, a clear separation into organizational adjustment and a mix of organizational adjustment and systemic strategy is to be noticed. Mixing both strategies does not hold more successful restructurings than applying only one of the two. Even though, a mixture shows a clear positive trend in sales productivity and profit margin, capital intensity increased and further financial KPIs do not play in accordance.

Proposition 3a) Cmpanies that apply organizational adjustment and a systemic change implementation in Germany, do not outperform companies applying solemnly one implementation strategy.

Both implementation strategies are defined as organizational redesign and take a certain duration until they are implemented. Corporations following a redesign target a long-term change that does not majorly include cost savings. Indicators for organizational redesign are e.g. forced redundancies since some positions or even whole business units are diminished, or increasingly capital intensive. This is another indicator for an organizational redesign approach due to its costly fundamental changes in corporate culture or the organizational structure.

Both indicators occur for all cases in the sample and do only partly support Gandolfi´s theory (2013), that downsizings alone do not help in improving corporate performance, while a combination of redesign and an RiW holds for a positive significant relation.

A step further down in the implementation process lies the process of reducing the workforce actively or passively. German corporations that combine active and passive downsizing measurements with forced redundancies during the downsizing, did not perform better than purely passive downsizings, without forced RiW in any case. Vice versa, corporations that rely on passive downsizing without forced RiW did not outperform active downsizers:

Proposition 3b) Corporations that combine active & passive downsizing with forced redundancies do not outperform corporations applying passive without forced reductions.

The application of active and passive RiW is typically for German procedures when it concerning corporate downsizings. As forced redundancies might cost a significantly more, as stated in chapter 4.6.5. Therefore, a company should apply forced redundancies, if active downsizing is applied in the context of Germany. The positive impact of passive redundancies on the cost side of a downsizing procedure is transparent since no severance pay or compensation must be fulfilled.

8.4 Impact of the Magnitude of Downsizing in Germany

The question, if a downsizing´s magnitude does have a clear impact in general, has been heatedly discussed prior to this paper and is at the core of a vast amount of studies (Hitt et al., 1994; Elayan et al., 1998; De Meuse et al., 2004). However, no clear relationship between the magnitude of the reduction and the successive increase in profitability could be measured in the German context:

Proposition 4a) The magnitude of Downsizing does not stand in direct correlation to the increase in profitability.

In the analysed sample, no magnitude stands in any correlation to increased profitability in one or more of the researched KPI´s. All show mixed financial performance, from lowest to highest magnitude, and no clear trend towards profitability. Even though lowest downsizing magnitudes show certain increases, there is no clear trend for a positive improvement in profitability compared to downsizings with higher a magnitude. Comparing successful with unsuccessful downsizings, the proposition is tightened.

These results do not fit with De Meuse et al.´s (2004) findings of better performing downsizers with lower RiW. However, this conclusion is not daunting since the reductions occur over a period of up to three years, and a direct correlation of downsizing used to cut costs and increased profitability is not inevitably proven(Gandolfi 2013).

The sample also shows no clear differentiation between RiW of less or more than 10%. The 10% threshold has been selected by De Meuse et al. (2004) to prove that lower Downsizings outperform higher:

Proposition 4b) Companies downsizing less than 10% do not show a greater increase in profitability than companies downsizing more than 10%.

Because the same number of downsizings are classified as unsuccessful in the magnitude of greater and lower than 10%, a clear trend cannot be established. Similar to the

magnitude in proposition 4a), there is no clear evidence of a better performance of downsizings with less than 10% compared to above 10%. While below 10% downsizers improve their sales productivity, above 10% downsizings all increase their profit margin. It appears, that the size of the downsizing measurement might not influence the period following the downsizing announcement. However, the relationship between a RiW of less than 10% and improved financial results by De Meuse et al. (2004) might not be supported in the German context.

8.5 The Influence of Industry and Economic Setting on Financial Performance

Lastly, the divestiture of economic setting into positive and negative, according to economy and industry is seen as predetermined for the outcome of the downsizing:

Proposition 5) Companies that downsize in a positive economic environment do outperform downsizings in negative economic settings in the German context.

Four out of six downsizings in the analysis occurred in a positive environment, their success is convincing since all are classified successful while downsizing within a negative economic setting fall into the category unsuccessful. Besides the economic environment and successful completion, profit margins also increase for downsizings in a positive environment, while they only do so for one out of two cases in a negative economic environment. This relation is at least weak, as negative economic surrounding foster less positive KPIs. The magnitude of a corporate downsizing did not show a clear trend for profitability in Germany, while the economic situation and industry trends do. This proposition is congruent with Marshall, Mccolgan, & Mcleish (2012), and Tuominen (2005), according to whose research, downsizing during an economic recession leads to negative abnormal returns, while layoff during boom phases phase shows no abnormal return.

9 Reflection

The last section on the conducted research and analysis reflects the results throughout the thesis to further elaborate on the underlying research topic.

This thesis confronted the reader with the effects of downsizing measurements on corporate profitability by using a multi-case analysis to answer how downsizing impacts the profitability of German corporations downsizing more than five percent of their

workforce. To begin with, a numeric comparison about the application of KPIs in downsizing studies was created, to allow for a transparent selection of KPIs for the proceedings of this paper. In a second step, following the selection of six downsizing cases, a qualitative evaluation, to classify each program, was undertaken. Upon this, six financial KPIs were analysed per case, and statistically compared over a period of three years, to compare each programs success individually and intra-industry. Lastly, an inter-industry comparison, including a descriptive statistical evaluation built the foundation for the final proposition development.

The results of this paper show a mixed effect of downsizing on profitability and greatly depend on the economic surrounding and magnitude of the decrease in workforce, each company faced when undergoing the organizational restructuring. A slight positive effect on the profitability of downsizers could be measured and verified, similar to comparable academic studies (Morris et al., 1999; Chalos & Chen, 2002; De Meuse et al., 2004).

The analysed sample, selected upon transparent criteria, is large enough for an inter-industry case comparison, based on qualitative findings. Reasons to follow a qualitative approach on case basis is inherent in the quality and amount of data available. In contrast to the amount of US database, no comparable downsizing disclosure database exists in Germany, what makes quantitative analysis harder (Bhankaraully, 2018). This default is one of the reasons for the limited number of quantitative downsizing studies in Germany. Even though, downsizing academia fosters quantitative regression-based analysis, the qualitative character of this study allows for qualitative insights and concluding drivers of case-specific profitability development.

Cases were grouped by industry, each case clarifying the necessity of downsizing within the given industry setting and corporate situation. The only industry in the sample, to allow a clear positive classification is banking & insurance since both cases analysed were successful, even though different KPIs developed positively. Strategic classification for both programs is similar and sub strategies are of same classified. Banking & Insurance is the sole industry, downsizing both operations in a positive economic environment. However, it is questionable, if the RiW is the direct cause of the success even though prior research underlines the success of downsizing in banking & insurance and further service corporations (Moore & Sonan, 2014). Besides, the figures for Commerzbank´s business performance would be categorized as an outlier, thereby distorting results, because the financial KPIs are many times higher than its counterparts.

For energy corporations, downsizings are highest among all industries and utilize the same subcategories, archetypes, and implementation strategies. Even though this is comprehensible since energy companies developed from producer and supplier to enabler of the energetic transformation, what is bound to costly investments (E.ON, 2012). Energy corporations underwent the transformation categorized as an organizational adjustment in both cases. This might allow the conclusion, that implementation strategy´s seems feasible, especially for energy. However, the derived performance varies most among energy cases and reflects the difficulties alongside their corporate transformation. The industry with the largest indifferences in their approach is Automotive. Both downsizings foster different strategies and their objectives are fundamentally different, even though both occur only within five years between 2005 and 2010. Performance reflects the different approaches and varies largely between the two. What either seems to affect profitability in a negative way is the sole passive RiW during Daimler´s CORE program, or the fact, that the company finished its efficiency program on the peak of the financial crisis, leaving five out six analysed factors to decrease.

Comparability of cases is established by the magnitude of factors analysed, and leads to the assumption, that Daimler´s downsizing would have been successful if it was not affected by the recession. The relation and ensuing dependence between an individual indicator, e.g. economic setting and profitability are not focus of this study. The proceedings of this paper are empirical-driven to facilitate an overview and the development of applicable and testable statements.

Results of the industry comparison in chapter 7.2 undermine the relevance of downsizing for each company and hold positive developments, e.g. profit margin, for all companies, combined with the overall positive development of KPIs (56%). Key is the application of organizational adjustment over pure workforce reduction strategies, prevalent in the multi-case analysis. To be highlighted is the multiple uses and repetitive schemes among downsizings, e.g. pooling of rationalization, retrenchment, and cost cutting and their varying performance. No clear scheme or pathway for successful downsizing in the given sample could be determined, besides a positive economic environment. The combination of positive economic settings and successful downsizing supports prior research on the field (Tuominen 2005; Marshall, Mccolgan, & Mcleish 2012). What needs to be taken into consideration is the export-dependency of many German industries, with inherent global operations of German corporations in the analysis of the economic and industry setting. The critical evaluation arrived from the company´s own assessment and respected

industry reports but could have been arrived on a single neutral evaluation, to allow for higher comparability and reliability.

The amount of six confounding indicators analysed from workforce performance (Net Income per Employee, Sales Productivity), industry performance (capital intensity), and business performance (ROA, ROE, and Profit Margin), does give a full and vivid picture of the case and situation of the downsizing. All variables have been utilized in prior research settings in the extant literature (De Meuse & Dai, 2013). The number of indicators facilitated a clear comparison of programs between direct competition, to assess the success of a downsizing qualitatively and quantitatively. Selection wise, clear criteria were developed and followed to derive with managerial and academic applicable statements in chapter eight. Nevertheless, the selection of six parameters does only enable comparability to a certain extent, because the three groups of KPIs originate from different corporate controlling systems inside the company. The case design facilitates a qualitative understanding of the corporate situation but does foster quantitative results only to a certain extent, due to the limited sample size and case character of the analysis. Even though, effects could be analysed on a broader scale, selecting only one to two of the chosen indicators would have supported an in-depth analysis of profitability as seen in quantitative studies targeting effects on profitability (Cameron et al., 1991; Munoz-Bullón & Sánchez-Bueno, 2008; Kets de Vries & Balazs, 2014).

The developed propositions do support existing theory to a large extent. Hence, propositions 1), 4a), 4b), and 5) do support prior research in and outside the German context. These refer to the performance of proactive downsizing, the magnitude of downsizing, and economic surrounding and financial performance. Contrary, Propositions 2) and 3) are influenced on a country-specific context since the application of certain strategies and proceedings depends on regulations. As demonstrated in chapter 4.6.5 the applicability of certain downsizing strategies and approaches is limited within the German context, due to legally binding compensations and a great involvement from the employee side. The addressed liberalization towards more employer-friendly downsizing regulations did partly influence the results of this study.

10 Conclusion

Downsizing in Germany occurs in a multitude of variations. Larger organizational restructurings rely on individual corporate circumstances and externally driven developments such as legal, industrial and technological changes. The inherent reduction

in personnel can be a positive or negative influence on corporate profitability. Behind any reduction in human resource lies an approach, including strategies, sub-strategies, archetypes, proceedings, and processes. These determine the outcome of a downsizing while being determined by the legal conduct of a country. Even though downsizing perceptibility is greatest for corporations that heavily downsize, the constant and ongoing downsizing activities are part of economic cycles and strategic adjustment in Germany.

"The thing that people need to remember is that downsizing may be back on the front pages, but the downsizing never slowed down. Downsizing has been a constant and regular feature of the new working world, and it will continue to be."
Bruce Tulgan, founder and CEO of RainmakerThinking (Datta et al., 2010, P.1).

Indicators help management to establish a realistic picture of the outcomes of strategic reduction activities, as corporate decision making depends on a variety of aspects. The expected organizational, operational, and financial targets justify downsizing decisions and large-scale layoffs, even though the achievability is not guaranteed, and outcomes vary largely. Downsizing affects corporations on multiple layers, described in this paper. The focus on German downsizings and their impact on corporate profitability are underlining the importance of a distinct decision-making process towards utilized downsizing approach and timing. The corporate situation, the magnitude of reduction, the downsizing approach, the combination of workforce adaptations, and the economic environment propose distinct positive or negative downsizing environments for corporations.

The cases analysed in this paper heavily vary in size, approach and outcome, but target a similar final state: increased financial performance. The combination of financial performance indicators and the classification of different organizational restructuring programs supports the existing body of downsizing-supportive research. This helps to refine academia towards a closer analysis of case-specific implementations, derived from individual downsizing programs, and general theory development. Since, the underlying aim of this thesis was to investigate the impact of RiW on corporate profitability, clear effects can be determined and aligned with prior research, while accounting for case-specific singularities in the German context.

To conclude, the undertaken research depicts a positive effect of downsizing on corporate profitability in a broader sense. Overcoming challenges through organizational

downsizing, inherent in a strategic redirection, is a feasible course of action in Germany. The legal conduct does support the minimization of simple cost-cutting reductions and impedes cost-driven measurements. Because downsizings are time-consuming and costly in Germany, corporations need to work strategically if they want to improve profitability and not offset costs and benefits.

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12 Appendix

1.1 Archetype Categorization

Reinforcement (convergence) approach	Reorientation Approach
• Continuous downsizing and redesign • Lower-level, less radical approaches • Stability in management, technology, and systems • Changes in work rather than structure • Reinforced mission and strategy • Focus upon doing things better • Emphasise upon efficiency • Downsizing proceeds redesign	• Discontinuous downsizing and redesign • Higher-level, more radical approaches • Change in management, technology, and systems • Changes in structure rather than work • Redesign mission and strategy • Focus upon doing better things • Emphasis upon effectiveness criteria • Redesign precedes downsizing

Table 9. Archetype Categorization according to Gandolfi (2013)

1.2 Overview Previous Studies on Downsizing and Profitability

Source (Author)	Timeframe & Market	Short Description	Main Results
Cascio (1993)	1991 U.S.	Survey done by Wyatt including 1,005 companies to study the economic impact of downsizing.	Costs decreased for 46% of the companies over time. Less than 33% of firms stated that profits increased.
De Meuse et al. (1994)	1987-1991 U.S.	Sample includes 100 Fortune 100 firms from 1987. Five measures of financial performance; profit margin, ROA, ROE,	Strong evidence that layoffs do not introduce financial improvement in two-year horizon. Financial performance of downsizers declined.

		asset turnover and market-to-book ratio.	
Estok (1996)	1994 Canada	Watson Wyatt studied downsizings of 148 major Canadian companies.	40% failed to reduce expenses while 60% could not gain higher earnings.
Mentzer (1996)	1986-1994 Canada	Sample size 82 – 122 of Canada´s largest 500 companies. Two measures of financial performance; ROA and net profit change.	No consistent relationship between extent of downsizing and profitability in the future.
Cascio et al. (1997)	1981-1992 U.S.	5,479 (n = 537). occurrences in S&P 500 with employment change Performance Measure = ROA.	Organizational downsizing leads to lower profitability, asset downsizing = improving profitability. Increases in ROA for companies with large increases (or small declines) in human resources.
Palmon et al. (1997)	1980-1990 U.S.	N = 140 layoff announcements. Financial perfor-mance measured by; ROA, ROE, and profit margin.	Low profitability firms downsize. Downsizing related to declining demands result in declining profitability. Surprising efficiency motivated reductions in workforce result in higher profitability.
Elayan et al. (1998)	1979-1991 U.S.	N = 646 layoff announcements.	Layoffs increase corporate efficiency and

		Financial performance measure; ROE, net income per employee, and sales per employee.	its workforce. Result is significant, 2% increase in ROE.
Morris et al. (1999)	1980-1994 U.S.	N = 3,628 companies missioned by U.S. Labor Departmenent. Focus on profitability measured through ROA.	Lower profitability firms downsize. Thus, workforce downsizers show decreased profitability in two-year period, while asset downsizers deliver two percent higher ROA.
Chen et al. (2001)	1990-1995 U.S.	N = 302 companies and 349 announced layoffs. Financial profitability measured by ROA and operating margin.	Results in consistent improvements in financial performance subsequent three years after downsizing. Financial measure is ROA (median) and operating margins
Chalos et al. (2002)	1993-1995 U.S.	N = 365 Fortune 500 companies (656 announcements). Financial performance measurement are COGS, OPCF, ROA, sales productivity, profitability, and debt solvency.	cost cutting and revenue refocusing strategies result in positive abnormal adjusted (industry) returns for OPCF and ROA. Plant closure delivers mixed results.
De Meuse et al. (2004)	1989-1998 U.S.	N = 100 (Fortune 500) from 1989 with 78	Layoff announcers do not outperform to non-

		downsizers. Financial performance measures are asset efficiency, market-to-book ratio, profit margin, ROA, ROE.	layoff companies within an eight-year timeframe.
Love et al. (2005)	1977-1993 U.S.	N = 100 largest industrial (Fortune 500) companies in 1977. Focus on three-year performance from year of the announcement. Financial performance measure are ROA and ROA-Market.	Downsizing does not impact large industrial firm performance, but proactive strategies outperform reactive downsizing strategies.
Muñoz-Bullón et al. (2011)	1993-2005 Spain	N = 2,053 Spanish manufacturing firms with 17,645 observations of downsizings between 10 and 200 employees. Financial performance measures are ROA and ROS.	Corporate performance, productivity and profitability do not improve through downsizing, with or without accounting for the size of the downsizing.

Table 10. Overview Previous Studies on Downsizing and Profitability; Source: Stated above

1.3 Research Tables and Figures

The deductive process in research approach from research methodology, adapted from Saunders et al. (2009).

Inductive process in research approach from research methodology, adapted from Saunders et al. (2009).

1.4 Overview of German DAX members between 2000 and 2015

Nr.	Company Name	Industry	DAX Listing Period
1	Adidas	Consumer Goods	2000-2015
2	Allianz	Banking & Insurance	2000-2015
3	BASF	Chemicals	2000-2016
4	Bayer	Chemicals	2000-2015
5	Beiersdorf	Chemicals	2008-2015
6	BMW	Manufacturing	2000-2015
7	Commerzbank	Banking & Insurance	2000-2015
8	Continental	Chemicals	2003-2015
9	Daimler (prev. DaimlerChrysler)	Manufacturing	2000-2015
10	Deutsche Bank	Banking &Insurance	2000-2015
11	Deutsche Börse	Banking &Insurance	2002-2015
12	Deutsche Post DHL	Others	2001-2015

13	Deutsche Postbank	Banking, Insurance	2006-2009
14	Deutsche Telekom	ICT	2000-2015
15	E.ON (prev. VEBA & VIAG)	Energy	2000-2015
16	EPCOS	Manufacturing	2000-2002
17	Fresenius Medical Care	Chemicals	2000-2015
18	Henkel	Chemicals	2000-2015
19	Hypo Real Estate (prev. Hypo Vereinsbank)	Banking & Insurance	2000-2008
20	Infineon	ICT	2000-2015
21	K&S	Resources	2008-2015
22	Linde Group	Chemicals	2000-2015
23	Lufthansa	Transport, Tourism	2000-2015
24	MAN	Manufacturing	2000-2010
25	Merck	Chemicals	2007-2015
26	Metro Group	Consumer Goods	2000-2010
27	MLP	Financial Services	2000-2003
28	Munich Re (prev. Münchner Rück)	Banking, Insurance	2000-2015
29	RWE	Energy	2000-2015
30	SAP	ICT	2000-2015
31	Siemens	ICT, Manufacturing	2000-2015
32	Thyssen (prev. Thyssenkrupp)	Manufacturing	2000-2015
33	TUI	Transport, Tourism	2000-2008
34	Volkswagen	Manufacturing	2000-2015

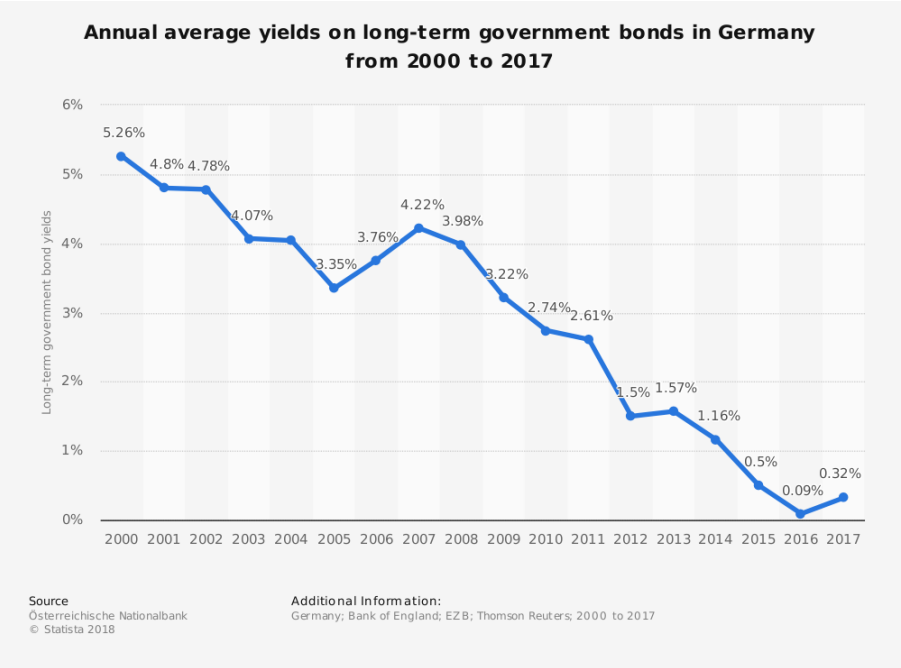
Table 11 Overview of German DAX Members between 2000 and 2015; Source: Own Illustration

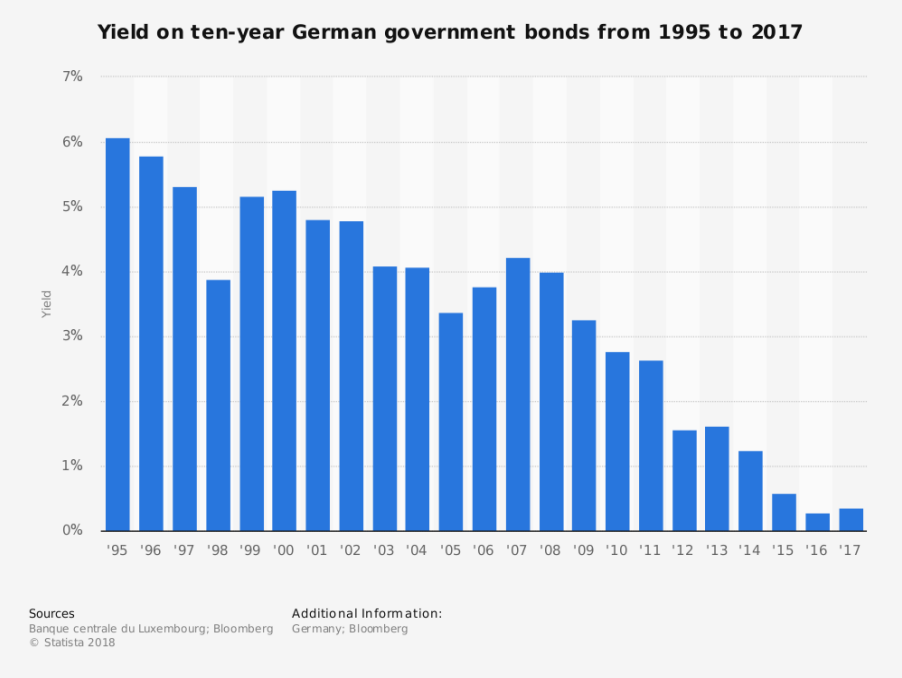
1.5 Adjusted Daimler employee numbers and changes

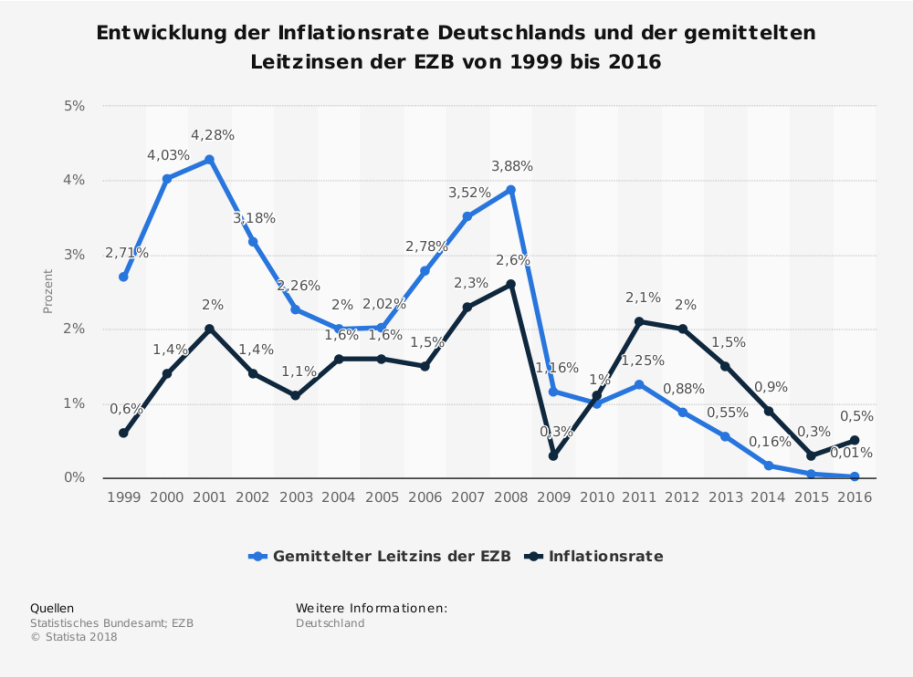
Daimler AG						
Size of workforce per segment and year						
	2004	**2005**	**2006**	**2007**	**2008**	**% Changes**
Cars	105.857	104.345	99.343	97.526	97.303	**-8%**
Nutzf	135.238	135.347	122.637	120.035	119.670	**-12%**
Vertrieb	48.029	48.773	46.952	49.078	49.127	**2%**
FS	11.224	11.129	10.718	6.743	7.116	**-37%**
Total	300.348	299.594	279.650	273.382	273.216	**-9%**

(DaimlerChrysler AG, 2005; Daimler AG, 2008)

1.6 Banking Interest Rate Development







12.1 Company Data Analysis

2.1 Comparison of Automotive Corporation

Automotive Comaprison		
Change Y3/ Y0	Daimler AG	BMW AG
Economic situation	Negative	Positive
Capital Intensity	29,35%	-13,94%
ROA	-59,27%	-15,64%
ROE	-68,86%	-17,77%
Profit Margin	-53,12%	19,54%
Employee Change pa	-7,36%	-11,24%
Net income per employee	-69,41%	16,26%
Sales productivity	8,73%	17,68%

2.2 Analysis Automotive Corporation Inputs

Financial Input Daimler AG

All values in € mn except employee number

	Sales	Revenue	Profit	Net Income	Total Assets	Average Assets	Shareholder´s equity	Employee Number	
2002	-	-	-	-	-	-	35.076	-	2002
2003	78.252	96.373	6.192	1.467	178.268	-	34.486	-	2003
2004	84.394	100.533	4.327	3.165	182.872	180.570	33.522	300.348	2004
2005	90.651	108.486	5.781	4.834	190.022	186.447	35.957	296.109	2005
2006	99.718	107.824	7.062	4.032	190.022	190.022	37.346	277.771	2006
2007	95.019	103.730	8.710	4.123	135.094	162.558	38.230	271.704	2007
2008	91.314	100.596	2.730	1.370	132.219	133.657	32.724	274.330	2008
ΔYear 3 to Year 1	0,73%	-7,27%	-52,78%	-71,66%	-30,42%	-28,31%	-8,99%	-7,36%	**ΔYear 3 to Year 1**
ΔYear 1 to Year 0	**-9,1%**	**0,6%**	**-18,1%**	**19,9%**	**0,0%**	**-1,9%**	**-3,7%**	**6,602%**	**ΔYear 1 to Year 0**

Financial Input BMW AG

All values in € mn except employee number

	Sales	Revenue	Profit	Net Income	Total Assets	Average Assets	Shareholder´s equity	Employee Number	
2004	51.799	44.335	3.583	2.242	67.634	-	5.609	105.972	2004
2005	56.492	46.656	3.287	2.239	74.566	71.100	5.108	105.798	2005
2006	60.111	48.999	4.124	2.874	79.057	76.812	4.921	107.345	2006
2007	68.986	56.018	3.873	3.134	88.997	84.027	5.648	107539	2007
2008	65.737	53.197	351	330	101.086	95.042	5.338	100.041	2008
2009	60.604	50.681	413	210	101.953	101.520	5.354	96.230	2009
2010	72.058	60.477	4.836	3.234	108.867	105.410	7.088	95.453	2010
ΔYear 3 to Year 1	4,45%	7,96%	24,86%	3,19%	22,33%	25,45%	25,50%	-11,24%	**ΔYear 3 to Year 1**
ΔYear 3 to Year 1	**-4,71%**	**-5,04%**	**-90,94%**	**-89,47%**	**13,58%**	**13,11%**	**-5,49%**	**-6,97%**	**ΔYear 1 to Year 0**

2.3 Comparison Banking & Insurance Corporations

Banking Comaprison		
Change Y3/ Y0	**Commerzbank AG**	**Postbank**
Economic Situation	Positive	Positive
Capital Intensity	-33,35%	6,98%
ROA	2171,98%	-2,11%
ROE	2210,46%	37,90%
Profit Margin	666,07%	23,95%
Employee Change pa	-20,32%	-7,69%
Net income per employee	-210,80%	67,85%
Sales productivity	-36,88%	74,81%

2.4 Analysis Banking & Insurance Corporations Inputs

Financial Input Commerzbank AG

All values in € mn except employee number

	Sales	Revenue	Profit	Net Income	Total Assets	Average Assets	Shareholder´s equity	Employee Number	
1998	16.022	18.761	892	1.240	326.211		10.060	28.642	1998
1999	20.570	24.120	911	1.371	372.040	349.126	1.141	30.557	1999
2000	18.811	22.752	1.342	2.234	459.662	415.851	12.523	31.786	2000
2001	22.571	26.230	102	43	501.312	480.487	11.760	31.899	2001
2002	18.032	21.184	-298	-373	422.143	461.728	8.808	28.603	2002
2003	11.767	15.183	-2.320	-1.980	381.585	401.864	9.091	25.426	2003
2004	11.352	14.671	393	828	424.879	403.232	9.801	25.417	2004
ΔYear 3 to Year 0	-49,71%	-44,07%	285,29%	1825,58%	-15,25%	-16,08%	-16,66%	-20,32%	ΔYear 3 to Year 1
ΔYear 1 to Year 0	-20,11%	-19,24%	-392,16%	-967,44%	-15,79%	-3,90%	-25,10%	-10,33%	ΔYear 1 to Year 0

Financial Input Postbank

All values in € mn except employee number

	Sales	Revenue	Profit	Net Income	Total Assets	Average Assets	Shareholder´s equity	Employee Number	
2001	7.773	6.810	191	343	139.816	136.902	4.847	10.510	2001
2002	7.212	6.458	132	399	141.090	140.453	4.396	10.379	2002
2003	6.407	5.610	352	497	132.619	136.855	4.866	8.700	2003
2004	6.633	5.271	435	648	128.254	130.437	4.727	10.010	2004
2005	6.655	5.350	492	719	140.280	134.267	5.186	9.240	2005
2006	10.034	7.650	695	941	184.887	162.584	5.207	10.010	2006
2007	10.703	8.384	870	1.004	202.991	193.939	5.311	9.240	2007
ΔYear 3 to Year 0	61,36%	59,06%	100,00%	54,94%	58,27%	48,68%	12,35%	-7,69%	ΔYear 3 to Year 0
ΔYear 1 to Year 0	**0,332%**	**1,499%**	**13,103%**	**10,957%**	**9,377%**	**2,937%**	**9,710%**	**-7,692%**	ΔYear 1 to Year 0

2.5 Comparison Energy Corporations

Energy Comaprison		
Change Y3/ Y0	**RWE AG**	**E.ON AG**
Economic Situation	Positive	Negative
Capital Intensity	8,85%	20,22%
ROA	328,24%	-63,72%
ROE	159,32%	-55,77%
Profit Margin	12,82%	81,05%
Employee Change pa	-30,92%	-36,56%
Net income per employee	271,53%	-52,99%
Sales productivity	92,73%	57,81%

2.6 Analysis Energy Corporations Inputs

Financial Input RWE AG

All values in € mn except employee number

	Sales	Revenue	Profit	Net Income	Total Assets	Average Assets	Shareholder´s equity	Employee Number	
2000	47.918	42.426	2.238	1.264	64.989		9.557	100.966	2000
2001	62.878	50.366	2.194	1.350	91.449	78.219	11.129	80.205	2001
2002	46.633	43.487	2.722	1.050	100.273	95.861	8.924	76.202	2002
2003	43.875	37.169	3.108	953	99.142	99.708	9.065	72.191	2003
2004	42.137	40.996	3.935	2.137	93.370	96.256	11.193	55.407	2004
2005	39.487	38.186	3.156	2.231	109.458	101.414	12.357	43.579	2005
2006	44.256	41.169	3.537	3.847	93.455	101.457	14.111	37.782	2006
ΔYear 3 to Year 1	-32,99%	-18,60%	79,35%	58,30%	2,10%	23,06%	0,58%	-30,92%	ΔYear 3 to Year 1
ΔYear 1 to Year 0	**-25,8%**	**-13,7%**	**24,1%**	**-22,2%**	**9,6%**	**22,6%**	**-19,8%**	**-5,0%**	ΔYear 1 to Year 0

Financial Input E.ON AG

All values in € mn except employee number

	Sales	Revenue	Profit	Net Income	Total Assets	Average Assets	Shareholder´s equity	Employee Number	
2008	86.753	86.753	5.340	2.583	156.824	136.902	38.444	39.281	2008
2009	79.974	79.974	3.946	3.708	152.614	154.719	43.986	35.636	2009
2010	92.863	92.863	7.517	3.708	152.881	152.748	45.585	35.116	2010
2011	112.954	112.954	2.174	9.196	152.872	152.877	39.613	35.133	2011
2012	132.093	133.997	5.222	-1.528	140.426	146.649	38.820	31.548	2012
2013	119.688	121.452	3.606	4.448	132.330	136.378	36.638	23.629	2013
2014	113.095	114.592	3.941	2.743	125.690	129.010	26.713	22.290	2014
ΔYear 3 to Year 1	0,12%	1,45%	81,28%	-70,17%	-17,78%	-15,61%	-32,57%	-36,56%	ΔYear 3 to Year 1
ΔYear 3 to Year 1	**16,94%**	**18,63%**	**140,20%**	**-116,62%**	**-8,14%**	**-4,07%**	**-2,00%**	**-10,20%**	ΔYear 1 to Year 0

2.7 Company Data Sets

All Data sets derived from Bloomberg LP (2018) are displayed unmodified. However, due to limited space available within the scope of this appendix, blank listings inside the data set is excluded.

For Automotive, data was extracted from the annual report, due to the extraction difficulties, concerning the separation of Daimler form Daimler Chrysler financial results. Thus, for both data sets, data was derived from the annual statement, to allow for similar corporate adjustments.

Data set Daimler AG

Daimler AG ten-year Summary

Werte in Millionen €	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Aus der Gewinn- und Verlustrechnung:										
Umsatz	148.243	160.278	150.422	147.408	136.437	142.059	95.209	99.222	99.399	**95.873**
Personalaufwand[2]	26.158	26.500	25.095	24.163	24.287	24.216	24.650	23.574	20.256	**15.192**
Forschungs- und Entwicklungsleistungen	7.438	7.241	5.848	5.942	5.571	5.658	3.928	3.733	4.148	**4.442**
davon aktiviert	–	–	–	–	–	–	591	715	990	**1.387**
Operating Profit / EBIT[1]	11.012	9.752	(1.346)	6.827	5.686	5.754	2.873	4.992	8.710	**2.730**
Operating Profit / EBIT[1] in % des Umsatzes	7,4%	6,1%	(0,9%)	4,6%	4,2%	4,1%	3,0%	5,0%	8,8%	**2,8%**
Ergebnis vor Ertragsteuern und außerordentliches Ergebnis	9.473	4.280	(1.703)	6.439	596	3.535	2.426	4.902	9.181	**2.795**
Net Operating Income / Net Operating Profit[1]	6.552	8.796	332	6.116	1.467	3.165	4.834	4.032	4.123	**1.370**
in % der Net Assets (RONA)	12,3%	14,8%	0,5%	9,4%	2,5%	5,7%	10,0%	8,3%	10,5%	**4,4%**
Konzernergebnis	5.746	7.894	(593)	5.098	448	2.466	4.215	3.783	3.985	**1.414**
Konzernergebnis je Aktie (€)	5,73	7,87	(0,59)	5,06	0,44	2,43	4,09	3,66	3,83	**1,41**
Konzernergebnis je Aktie, verwässert (€)	5,69	7,80	(0,59)	5,03	0,44	2,43	4,08	3,64	3,80	**1,40**
Dividendensumme	2.358	2.358	1.003	1.519	1.519	1.519	1.527	1.542	1.928	**556**
Dividende je Aktie (€)	2,35	2,35	1,00	1,50	1,50	1,50	1,50	1,50	2,00	**0,60**
Dividende und Steuergutschrift[3] je Aktie (€)	3,36	3,36	–	–	–	–	–	–	–	**–**
Aus der Bilanz:										
Sachanlagen	36.434	40.145	41.180	36.285	32.933	34.017	35.295	32.747	14.650	**16.087**
Vermietete Gegenstände	27.249	33.714	36.002	28.243	24.385	26.711	34.236	36.949	19.638	**18.672**
Sonstige langfristige Vermögenswerte	–	–	–	–	–	–	76.200	67.507	39.686	**42.071**
Vorräte	14.985	16.283	16.754	15.642	14.948	16.805	19.699	18.396	14.086	**16.805**
Liquide Mittel	18.201	12.510	14.536	12.439	14.296	11.666	8.063	8.409	15.631	**6.912**
Sonstige kurzfristige Vermögenswerte	–	–	–	–	–	–	54.519	53.626	31.403	**31.672**
Bilanzsumme	174.667	199.274	207.616	187.527	178.450	182.872	228.012	217.634	135.004	**132.210**
Eigenkapital	36.060	42.422	38.928	35.076	34.486	33.522	35.957	37.346	38.230	**32.724**
davon: Gezeichnetes Kapital	2.565	2.609	2.609	2.633	2.633	2.633	2.647	2.673	2.766	**2.768**
Eigenkapitalquote	19,3%	20,1%	18,3%	17,9%	18,5%	17,5%	15,1%	16,5%	26,9%	**24,3%**
Langfristige Schulden	–	–	–	–	–	–	96.823	90.452	47.998	**47.313**
Kurzfristige Schulden	–	–	–	–	–	–	95.232	89.836	48.866	**52.182**
Nettoliquidität im Industriegeschäft	12.180	1.330	(4.768)	380	1.774	2.193	8.016	9.861	12.912	**3.106**
Net Assets im Jahresdurchschnitt	53.174	59.496	66.094	65.128	59.572	55.885	48.313	48.584	39.187	**31.466**

(Daimler AG, 2008)

Financial Performance per Segment Daimler AG

Die Segmentinformationen stellen sich für die Geschäftsjahre 2005, 2004 und 2003 wie folgt dar:

Angaben in Millionen €	Mercedes Car Group	Chrysler Group	Nutz-fahrzeuge	Financial Services	Übrige Aktivitäten	Summe Segmente	Aufgegebene Aktivitäten/ Eliminie-rungen	Daimler-Chrysler-Konzern
2005								
Außenumsätze	46.429	50.086	38.356	12.798	2.107	149.776	–	149.776
konzerninterne Umsätze	3.586	32	2.278	2.641	289	8.826	(8.826)	–
Umsätze gesamt	50.015	50.118	40.634	15.439	2.396	158.602	(8.826)	149.776
Operating Profit (Loss)	(505)	1.534	2.093	1.468	591	5.181	4	5.185
Segment-Aktiva	27.081	55.372	21.712	99.635	29.251	233.051	(31.419)	201.632
Sachinvestitionen	1.629	3.083	1.743	45	109	6.609	(29)	6.580
Abschreibungen	2.418	3.336	1.313	5.757	168	12.992	(381)	12.611
2004								
Außenumsätze	46.082	49.485	32.940	11.646	1.906	142.059	–	142.059
konzerninterne Umsätze	3.548	13	1.824	2.293	294	7.972	(7.972)	–
Umsätze gesamt	49.630	49.498	34.764	13.939	2.200	150.031	(7.972)	142.059
Operating Profit	1.666	1.427	1.332	1.250	456	6.131	(377)	5.754
Segment-Aktiva	26.945	45.869	20.156	88.036	26.526	207.532	(24.660)	182.872
Sachinvestitionen	2.343	2.647	1.184	91	134	6.399	(13)	6.386
Abschreibungen	1.854	3.368	1.058	4.976	164	11.420	(308)	11.112
2003								
Außenumsätze	48.025	49.321	25.304	11.997	3.723	138.370	(1.933)	136.437
konzerninterne Umsätze	3.421	–	1.502	2.040	361	7.324	(7.324)	–
Umsätze gesamt	51.446	49.321	26.806	14.037	4.084	145.694	(9.257)	136.437
Operating Profit (Loss)	3.126	(506)	811	1.240	1.329	6.000	(314)	5.686
Segment-Aktiva	24.199	47.147	14.713	83.239	31.227	200.525	(22.075)	178.450
Sachinvestitionen	2.939	2.487	958	76	169	6.629	(15)	6.614
Abschreibungen	1.789	3.927	890	5.087	196	11.889	(290)	11.599

(DaimlerChrysler AG, 2005)

Continuation Financial Performance per Segment Daimler AG

Werte in Millionen €	2008	2007	2006	08/07 Veränd. in %
Mercedes-Benz Cars				
EBIT	**2.117**	4.753	1.783	-55
Umsatz	**47.772**	52.430	51.410	-9
Umsatzrendite	**4,4%**	9,1%	3,5%	.
Sachinvestitionen	**2.246**	1.910	1.698	+18
Forschungs- und Entwicklungsleistungen	**2.904**	2.733	2.274	+10
davon aktiviert	**1.060**	705	496	+50
Absatz (Einheiten)	**1.273.013**	1.293.184	1.251.797	-2
Beschäftigte (31.12.)	**97.303**	97.526	99.343	-0
Daimler Trucks				
EBIT	**1.607**	2.121	1.851	-24
Umsatz	**28.572**	28.466	31.789	+0
Umsatzrendite	**5,6%**	7,5%	5,8%	.
Sachinvestitionen	**991**	766	912	+29
Forschungs- und Entwicklungsleistungen	**1.056**	1.047	1.038	+1
davon aktiviert	**326**	283	211	+15
Absatz (Einheiten)	**472.074**	467.667	516.087	+1
Beschäftigte (31.12.)	**70.415**	80.067	83.237	-1
Daimler Financial Services				
EBIT	**677**	630	807	+7
Umsatz	**9.282**	8.711	8.106	+7
Neugeschäft	**29.514**	27.611	27.754	+7
Vertragsvolumen	**63.353**	59.143	57.030	+7
Sachinvestitionen	**41**	29	17	+41
Beschäftigte (31.12.)	**7.116**	6.743	6.813	+6
Vans, Buses, Other				
EBIT	**(1.230)**	1.956	1.327	.
Umsatz	**14.070**	14.123	13.151	+6
Sachinvestitionen	**270**	241	378	+12
Forschungs- und Entwicklungsleistungen	**392**	368	421	+7
davon aktiviert	**1**	2	8	-50
Absatz (Einheiten)	**327.789**	328.122	305.001	-0
Beschäftigte (31.12.)	**40.255**	39.968	37.679	+1

(Daimler AG, 2008)

Data set BMW AG

BMW AG ten-year Financial Summary

		2010	2009	2008	2007
Auslieferungen					
Automobile	Einheiten	**1.461.166**	1.286.310	1.435.876	1.500.678
Motorräder[2]	Einheiten	**110.113**	100.358	115.196	102.467
Produktion					
Automobile	Einheiten	**1.481.253**	1.258.417	1.439.918	1.541.503
Motorräder[4]	Einheiten	**112.271**	93.243	118.452	104.396
Finanzdienstleistungen					
Vertragsbestand	Verträge	**3.190.353**	3.085.946	3.031.935	2.629.949
Bilanzielles Geschäftsvolumen[5]	Mio. Euro	**66.233**	61.202	60.653	51.257
Gewinn-und-Verlust-Rechnung					
Umsatz	Mio. Euro	**60.477**	50.681	53.197	56.018
Bruttomarge Konzern[6]	in %	**18,0**	10,5	11,4	21,8
Ergebnis vor Finanzergebnis	Mio. Euro	**5.094**	289	921	4.212
Ergebnis vor Steuern	Mio. Euro	**4.836**	413	351	3.873
Umsatzrendite (Ergebnis vor Steuern/Umsatz)	in %	**8,0**	0,8	0,7	6,9
Ertragsteuern	Mio. Euro	**1.602**	203	21	739
Steuerlastquote	in %	**33,1**	49,2	6,0	19,1
Jahresüberschuss	Mio. Euro	**3.234**	210	330	3.134
Bilanz					
Langfristige Vermögenswerte	Mio. Euro	**65.716**	62.009	62.416	56.619
Kurzfristige Vermögenswerte	Mio. Euro	**43.151**	39.944	38.670	32.378
Eigenkapital	Mio. Euro	**23.100**	19.915	20.273	21.744
Eigenkapitalquote Konzern	in %	**21,2**	19,5	20,1	24,4
Langfristige Rückstellungen und Verbindlichkeiten	Mio. Euro	**45.633**	45.119	41.526	33.469
Kurzfristige Rückstellungen und Verbindlichkeiten	Mio. Euro	**40.134**	36.919	39.287	33.784
Bilanzsumme	Mio. Euro	**108.867**	101.953	101.086	88.997
Kapitalflussrechnung					
Zahlungsmittel und Zahlungsmitteläquivalente	Mio. Euro	**7.432**	7.767	7.454	2.393
Operativer Cashflow[7]	Mio. Euro	**8.150**	4.921	4.471	6.246
Investitionen	Mio. Euro	**3.263**	3.471	4.204	4.267
Investitionsquote (Investitionen/Umsatz)	in %	**5,4**	6,8	7,9	7,6
Personal					
Mitarbeiter am Jahresende[8]		**95.453**	96.230	100.041	107.539
Personalaufwand je Mitarbeiter	Euro	**83.141**	72.349	75.612	76.704
Dividende					
Dividendensumme	Mio. Euro	**852**	197	197	694
Dividende je Stammaktie/Vorzugsaktie	Euro	**1,30/1,32**	0,30/0,32	0,30/0,32	1,06/1,08

[1] angepasst nach Neubehandlung der Bilanzierung von Pensionsverpflichtungen
[2] angepasst nach Harmonisierung der internen und externen Rechnungslegung
[3] ohne C1, Auslieferungen bis 2003: 32.859 Einheiten, inklusive Husqvarna Motorcycles
[4] ohne C1 Fertigung bei Bertone, Produktion C1 bis 2002: 33.499 Einheiten, inklusive Husqvarna Motorcycles
[5] Wert ermittelt aus der Bilanz: bis 2007 aus der Konzernbilanz, ab 2008 der Segmentbilanz Finanzdienstleistungen
[6] Seit 2008 sind die Forschungs- und Entwicklungskosten in den Umsatzkosten enthalten.
[7] In der Kapitalflussrechnung aufgeführter Mittelzufluss aus der betrieblichen Tätigkeit: bis 2006 des Industriegeschäfts, ab 2007 des Segments Automobile
[8] Werte ohne ruhende Arbeitsverhältnisse, ohne Mitarbeiter in Freistellphase der Altersteilzeit, ohne Geringverdiener
[9] Anpassung Ausschüttung wegen Erwerbs eigener Anteile

Continuation BMW AG 10 Year Financial Summary

2006	2005	2004[1]	2003	2002[2]	2001	
						Auslieferungen
1.373.970	1.327.992	1.208.732	1.104.916	1.057.344	905.657	Automobile
100.064	97.474	92.266	92.962	92.599	84.713	Motorräder[3]
						Produktion
1.366.838	1.323.119	1.250.345	1.118.940	1.090.258	946.730	Automobile
103.759	92.012	93.836	89.745	93.010	90.478	Motorräder[4]
						Finanzdienstleistungen
2.270.528	2.087.368	1.843.399	1.623.425	1.443.236	1.297.702	Vertragsbestand
44.010	40.428	32.556	28.647	26.505	25.306	Bilanzielles Geschäftsvolumen[5]
						Gewinn-und-Verlust-Rechnung
48.999	46.656	44.335	41.525	42.411	38.463	Umsatz
23,1	22,9	23,2	22,7	22,8	25,3	Bruttomarge Konzern[6]
4.050	3.793	3.774	3.353	3.505	3.356	Ergebnis vor Finanzergebnis
4.124	3.287	3.583	3.205	3.297	3.242	Ergebnis vor Steuern
8,4	7,0	8,1	7,7	7,8	8,4	Umsatzrendite (Ergebnis vor Steuern/Umsatz)
1.250	1.048	1.341	1.258	1.277	1.376	Ertragsteuern
30,3	31,9	37,4	39,3	38,7	42,4	Steuerlastquote
2.874	2.239	2.242	1.947	2.020	1.866	Jahresüberschuss
						Bilanz
50.514	47.556	40.822	36.921	34.667	31.282	Langfristige Vermögenswerte
28.543	27.010	26.812	24.554	20.844	19.977	Kurzfristige Vermögenswerte
19.130	16.973	16.534	16.150	13.871	10.770	Eigenkapital
24,2	22,8	24,4	26,3	25,0	21,0	Eigenkapitalquote Konzern
31.372	29.509	26.517	22.090	20.028	19.223	Langfristige Rückstellungen und Verbindlichkeiten
28.555	28.084	24.583	23.235	21.612	21.266	Kurzfristige Rückstellungen und Verbindlichkeiten
79.057	74.566	67.634	61.475	55.511	51.259	Bilanzsumme
						Kapitalflussrechnung
1.336	1.621	2.128	1.659	2.333	2.437	Zahlungsmittel und Zahlungsmitteläquivalente
5.373	6.184	6.157	4.970	4.553	4.304	Operativer Cashflow[7]
4.313	3.993	4.347	4.245	4.042	3.516	Investitionen
8,8	8,6	9,8	10,2	9,5	9,1	Investitionsquote (Investitionen/Umsatz)
						Personal
106.575	105.798	105.972	104.342	101.395	97.275	Mitarbeiter am Jahresende[8]
76.621	75.238	73.241	73.499	69.560	66.711	Personalaufwand je Mitarbeiter
						Dividende
458	419[9]	419	392	351	350	Dividendensumme
0,70/0,72	0,64/0,66	0,62/0,64	0,58/0,60	0,52/0,54	0,52/0,54	Dividende je Stammaktie/Vorzugsaktie

(BMW AG, 2010)

Sales Revenue BMW AG

Umsatzerlöse nach Segmenten

in Mio. Euro	1.1. bis 31.12. 2006	1.1. bis 31.12. 2005
Automobile	47.767	45.861
Motorräder	1.265	1.223
Finanzdienstleistungen	11.079	9.408
Überleitungen	–11.112	–9.836
Konzern	**48.999**	46.656

Ergebnis vor Steuern nach Segmenten

in Mio. Euro	1.1. bis 31.12. 2006	1.1. bis 31.12. 2005
Automobile	3.012	2.976
Motorräder	66	60
Finanzdienstleistungen	685	605
Überleitungen	361	–354
Konzern	**4.124**	3.287

(BMW AG, 2006)

Umsatzerlöse nach Segmenten

in Mio. Euro	2008	2007
Automobile	**48.782**	53.818
Motorräder	**1.230**	1.228
Finanzdienstleistungen	**15.725**	13.940
Sonstige Gesellschaften	**191**	290
Konsolidierungen	**–12.731**	–13.258
Konzern	**53.197**	**56.018**

Ergebnis vor Steuern nach Segmenten

in Mio. Euro	2008	2007
Automobile	**318**	3.232
Motorräder	**51**	71
Finanzdienstleistungen	**–292**	743
Sonstige Gesellschaften	**295**	168
Konsolidierungen	**–21**	–341
Konzern	**351**	**3.873**

(BMW AG, 2008)

Continuation of Sales Revenue BMW AG

Umsatzerlöse nach Segmenten

in Mio. Euro

	2010	2009
Automobile	**54.137**	43.737
Motorräder	**1.304**	1.069
Finanzdienstleistungen	**16.617**	15.798
Sonstige Gesellschaften	**4**	3
Konsolidierungen	**–11.585**	–9.926
Konzern	**60.477**	**50.681**

Ergebnis vor Steuern nach Segmenten

in Mio. Euro

	2010	2009
Automobile	**3.887**	–588
Motorräder	**65**	11
Finanzdienstleistungen	**1.214**	365
Sonstige Gesellschaften	**45**	51
Konsolidierungen	**–375**	574
Konzern	**4.836**	**413**

(BMW AG, 2010)

Data set Commerzbank AG

Balance Sheet Commerzbank AG

Commerzbank AG (CBK GY) - Standardized Balance Sheet							
In Millions of EUR except Per Share	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
12 Months Ending	12/31/1998	12/31/1999	12/31/2000	12/31/2001	12/31/2002	12/31/2003	12/31/2004
Total Assets							
+ Cash & Cash Equivalents	3.232,9	6.184,0	5.082,0	5.948,0	6.612,0	5.711,0	3.634,0
+ Interbanking Assets	57.952,9	49.796,0	74.440,0	63.282,0	54.260,0	51.657,0	86.719,0
+ ST And LT Investments	73.136,2	105.685,0	142.862,0	204.574,0	202.808,0	177.105,0	177.598,0
+ Total Loans	185.242,1	204.351,0	225.582,0	220.722,0	148.857,0	138.773,0	150.586,0
- Reserve for Loan Losses	4.646,6	5.132,0	5.184,0	5.538,0	5.293,0	5.510,0	5.305,0
+ Net Loans	180.595,5	199.219,0	220.398,0	215.184,0	143.564,0	133.263,0	145.281,0
+ Net Fixed Assets	2.073,8	2.265,0	2.621,0	3.374,0	2.505,0	2.063,0	1.766,0
+ Total Intangible Assets	385,5	582,0	1.517,0	1.484,0	1.151,0	802,0	801,0
+ Goodwill	—	—	1.417,0	1.380,0	1.040,0	690,0	697,0
+ Other Intangible Assets	—	—	100,0	104,0	111,0	112,0	104,0
+ Investments in Associates	735,7	1.003,0	443,0	852,0	3.584,0	2.300,0	-2.379,0
+ Customer Acceptances & Liab	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ Other Assets	4.230,9	5.962,0	7.984,0	7.466,0	11.234,0	10.984,0	9.078,0
Total Assets	**321.607,7**	**369.693,1**	**454.904,0**	**501.312,0**	**422.134,0**	**381.585,0**	**424.877,0**
Liabilities & Shareholders' Equity							
+ Demand Deposits	27.525,4	26.358,0	36.631,0	36.589,0	33.108,0	34.294,0	36.482,0
+ Interest Bearing Deposits	66.061,5	64.684,0	71.023,0	79.809,0	62.592,0	65.706,0	68.582,0
+ Saving Deposits	9.404,7	10.234,0	9.679,0	10.704,0	12.073,0	12.273,0	16.892,0
+ Time Deposits	56.656,8	54.450,0	61.344,0	69.105,0	50.519,0	53.433,0	51.690,0
+ Other Deposits	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ Total Deposits	93.586,9	91.042,1	107.654,0	116.398,0	95.700,0	100.000,0	105.064,0
+ ST Borrowings & Repos	105.790,4	126.611,0	170.320,0	171.566,0	140.750,0	110.383,0	132.391,0
+ Secs Sold Under Repo	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ LT Debt	84.663,3	108.947,0	118.306,0	138.714,0	76.203,0	78.269,0	79.165,0
+ Other Liabilities	26.913,4	31.267,0	44.868,0	61.530,0	99.411,0	82.629,0	97.234,0
Total Liabilities	**310.953,9**	**357.867,1**	**441.148,0**	**488.208,0**	**412.064,0**	**371.281,0**	**413.854,0**
+ Preferred Equity and Hybrid Capital	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ Share Capital & APIC	6.332,3	6.725,0	7.438,0	7.606,0	7.541,0	6.020,0	6.027,0
- Treasury Stock	1,0	0,0	255,0	102,0	32,0	9,0	10,0
+ Retained Earnings	—	—	—	—	3.322,0	3.286,0	3.533,0
+ Other Equity	3.728,3	4.416,0	5.340,0	4.256,0	-2.023,0	-206,0	204,0
Equity before Minority Interest	**10.059,7**	**11.141,0**	**12.523,0**	**11.760,0**	**8.808,0**	**9.091,0**	**9.754,0**
+ Minority/Non Controlling Interest	594,1	685,0	1.233,0	1.344,0	1.262,0	1.213,0	1.269,0
Total Equity	**10.653,8**	**11.826,0**	**13.756,0**	**13.104,0**	**10.070,0**	**10.304,0**	**11.023,0**
Total Liabilities & Equity	**321.607,7**	**369.693,1**	**454.904,0**	**501.312,0**	**422.134,0**	**381.585,0**	**424.877,0**
Reference Items							
Accounting Standard	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS
Shares Outstanding	82,7	85,7	89,0	90,4	90,5	99,7	99,2
Number of Treasury Shares	0,1	0,0	1,4	1,0	2,0	0,6	0,7
Pension Obligations	1.268,5	1.360,0	1.432,0	1.499,0	1.516,0	1.432,0	1.495,0
Book Value per Share	121,66	130,05	140,76	130,09	97,37	91,14	98,34
Tier 1 Capital Ratio	6,30	6,30	6,50	6,20	7,30	7,30	7,50
Net Debt	129.267,9	179.578,0	209.104,0	241.050,0	156.081,0	131.284,0	121.203,0
Tangible Common Equity Ratio	3,01	2,86	2,43	2,06	1,82	2,18	2,11
Tangible Common Equity to Risk-Weighted	—	—	—	—	—	6,10	6,64
Total Risk-Based Capital Ratio	8,70	9,70	9,90	10,30	12,30	13,00	12,60
Real Estate Loans	33.955,9	43.380,0	53.512,0	58.963,0	25.718,0	26.855,0	27.283,0
Earning Assets	316.331,2	359.832,0	442.884,0	488.578,0	405.925,0	367.535,0	414.903,0
Non-Performing Assets	5.668,0	5.836,0	6.292,0	6.905,0	5.163,0	5.220,0	—
Off-Balance Sheet Commitments	72.581,0	76.414,0	101.721,0	102.657,0	75.063,0	65.568,0	61.529,0
Number of Employees	32.470,00	34.870,00	39.044,00	39.481,00	36.566,00	32.377,00	32.820,00

Source: Bloomberg

Income Statement Commerzbank AG

Commerzbank AG (CBK GY) - Adjusted Income Statement				
In Millions of EUR except Per Share	FY 2001	FY 2002	FY 2003	FY 2004
12 Months Ending	12/31/2001	12/31/2002	12/31/2003	12/31/2004
Net Revenue	**8.004,0**	**6.249,0**	**6.644,0**	**6.754,0**
+ Net Interest Income	**3.578,0**	**3.075,0**	**2.691,0**	**2.920,0**
+ Total Interest Income	22.568,0	17.974,0	11.682,0	11.281,0
+ Interest Income	*22.163,0*	*17.770,0*	*11.487,0*	*11.062,0*
+ Investment Income	*405,0*	*204,0*	*195,0*	*219,0*
- Total Interest Expense	18.990,0	14.899,0	8.991,0	8.361,0
+ Trading Securities G/L	1.479,0	400,0	1.028,0	884,0
+ Commissions & Fees Earned	2.566,0	2.416,0	2.505,0	2.587,0
+ Other Operating Income (Losses)	381,0	358,0	420,0	363,0
- Provision for Loan Losses	**927,0**	**1.321,0**	**1.084,0**	**836,0**
Net Revenue after Provisions	**7.077,0**	**4.928,0**	**5.560,0**	**5.918,0**
- Total Non-Interest Expense	**6.777,0**	**5.747,0**	**5.214,0**	**5.083,0**
+ Commissions & Fees Paid	299,0	296,0	369,0	337,0
+ Other Operating Expenses	6.478,0	5.451,0	4.845,0	4.746,0
Operating Income (Loss)	**300,0**	**-819,0**	**346,0**	**835,0**
- Non-Operating (Income) Loss	**257,0**	**-447,0**	**2.326,0**	**39,0**
+ (Income) Loss from Affiliates	-3,0	-58,0	-85,0	-93,0
+ Other Non-Op (Income) Loss	260,0	-389,0	2.411,0	132,0
Pretax Income (Loss), Adjusted	**43,0**	**-372,0**	**-1.980,0**	**796,0**
- Abnormal Losses (Gains)	**—**	**—**	**104,0**	**132,0**
Pretax Income (Loss), GAAP	**43,0**	**-372,0**	**-1.980,0**	**796,0**
- Income Tax Expense (Benefit)	**-114,0**	**-103,0**	**249,0**	**353,0**
Income (Loss) from Cont Ops	**157,0**	**-269,0**	**-2.229,0**	**443,0**
- Net Extraordinary Losses (Gains)	**0,0**	**0,0**	**0,0**	**0,0**
Income (Loss) Incl. MI	**157,0**	**-269,0**	**-2.229,0**	**443,0**
- Minority Interest	55,0	29,0	91,0	81,0
Net Income, GAAP	**102,0**	**-298,0**	**-2.320,0**	**362,0**
- Preferred Dividends	0,0	0,0	0,0	0,0
Net Income Avail to Common, GAAP	**102,0**	**-298,0**	**-2.320,0**	**362,0**
Net Income Avail to Common, Adj	**102,0**	**-298,0**	**-2.320,0**	**362,0**
Net Abnormal Losses (Gains)	—	—	—	132,0
Net Extraordinary Losses (Gains)	0,0	0,0	0,0	0,0
Basic Weighted Avg Shares	89,5	89,0	90,8	99,0
Basic EPS, GAAP	**1,14**	**-3,36**	**-25,53**	**3,66**
Basic EPS from Cont Ops	**1,14**	**-3,36**	**-25,53**	**3,66**
Basic EPS from Cont Ops, Adjusted	**—**	**—**	**-24,39**	**4,99**
Diluted Weighted Avg Shares	89,5	89,0	90,8	99,0
Diluted EPS, GAAP	**1,14**	**-3,36**	**-25,53**	**3,66**
Accounting Standard	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS
Net Interest Income Less Provisions	2.651,0	1.754,0	1.607,0	2.084,0
Net Revenue - Net of Commissions Paid	—	—	6.275,0	6.417,0
Total Revenue	26.994,0	21.148,0	15.635,0	15.115,0
Operating Margin	3,75	-13,11	5,21	12,36
Pretax Margin	0,54	-5,95	-29,80	11,79
Profit Margin	1,27	-4,77	-34,92	5,36
T12 Net Interest Margin	0,77	0,69	0,70	0,75
Sales per Employee	683.721,28	578.351,47	482.904,53	460.542,35
Dividends per Share	2,40	0,60	0,00	1,50
Total Cash Common Dividends	216,7	54,0	0,0	150,0
Pre-Tax Pre-Provision Profit	1.227,0	502,0	1.430,0	1.671,0
Efficiency Ratio	84,08	91,57	77,21	73,96
Actual Loan Losses (Net)	701,0	859,0	843,0	1.024,0
Reinvested Earnings	-114,7	-352,0	-2.320,0	212,0

Source: Bloomberg

Data set Postbank

Balance Sheet Postbank

Deutsche Postbank AG (DPB GR) - Standardized Balance Sheet							
In Millions of EUR except Per Share 12 Months Ending	FY 2001 12/31/2001	FY 2002 12/31/2002	FY 2003 12/31/2003	FY 2004 12/31/2004	FY 2005 12/31/2005	FY 2006 12/31/2006	FY 2007 12/31/2007
Total Assets							
+ Cash & Cash Equivalents	1.360,0	1.306,0	1.622,0	1.125,0	968,0	1.015,0	3.352,0
+ Interbanking Assets	37.402,0	37.774,0	34.071,0	23.820,0	17.801,0	16.350,0	24.560,0
+ ST And LT Investments	55.201,0	56.669,0	52.280,0	53.160,0	65.794,0	76.562,0	78.478,0
+ Total Loans	44.278,0	43.929,0	43.310,0	47.739,0	52.873,0	87.182,0	92.064,0
- Reserve for Loan Losses	621,0	588,0	597,0	667,0	776,0	1.155,0	1.154,0
+ Net Loans	43.657,0	43.341,0	42.713,0	47.072,0	52.097,0	86.027,0	90.910,0
+ Net Fixed Assets	1.022,0	977,0	960,0	926,0	726,0	858,0	768,0
+ Total Intangible Assets	93,0	139,0	168,0	168,0	223,0	2.505,0	2.415,0
+ Goodwill	—	19,0	21,0	28,0	51,0	1.626,0	1.631,0
+ Other Intangible Assets	—	120,0	147,0	140,0	172,0	879,0	784,0
+ Investments in Associates	—	—	—	18,0	15,0	17,0	22,0
+ Customer Acceptances & Liab	0,0	0,0	0,0	—	—	—	—
+ Other Assets	1.081,0	884,0	805,0	1.983,0	2.671,0	1.570,0	2.430,0
Total Assets	**139.816,0**	**141.090,0**	**132.619,0**	**128.254,0**	**140.280,0**	**184.887,0**	**202.913,0**
Liabilities & Shareholders' Equity							
+ Demand Deposits	18.351,0	16.614,0	20.227,0	21.255,0	21.940,0	23.525,0	26.589,0
+ Interest Bearing Deposits	43.937,0	50.032,0	53.714,0	59.264,0	56.541,0	77.791,0	84.107,0
+ Saving Deposits	24.291,0	29.053,0	33.739,0	36.158,0	37.988,0	53.015,0	51.911,0
+ Time Deposits	19.646,0	20.979,0	19.975,0	23.106,0	18.553,0	24.776,0	32.196,0
+ Other Deposits	30,0	19,0	0,0	0,0	0,0	0,0	—
+ Total Deposits	62.318,0	66.665,0	73.941,0	80.519,0	78.481,0	101.316,0	110.696,0
+ ST Borrowings & Repos	23.480,0	33.051,0	25.177,0	14.733,0	30.433,0	45.978,0	52.201,0
+ Secs Sold Under Repo	0,0	0,0	0,0	0,0	0,0	0,0	—
+ LT Debt	43.981,0	31.250,0	23.085,0	20.780,0	18.866,0	22.275,0	24.106,0
+ Other Liabilities	5.130,0	5.714,0	5.536,0	7.456,0	7.439,0	10.111,0	10.685,0
Total Liabilities	**134.909,0**	**136.680,0**	**127.739,0**	**123.488,0**	**135.219,0**	**179.680,0**	**197.688,0**
+ Preferred Equity and Hybrid Capital	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ Share Capital & APIC	1.569,0	1.569,0	1.569,0	1.569,0	1.570,0	1.570,0	1.570,0
- Treasury Stock	0,0	0,0	0,0	0,0	0,0	0,0	—
+ Retained Earnings	3.343,0	3.338,0	3.591,0	3.196,0	3.256,0	3.746,0	4.358,0
+ Other Equity	-65,0	-511,0	-294,0	0,0	234,0	-111,0	-705,0
Equity before Minority Interest	**4.847,0**	**4.396,0**	**4.866,0**	**4.765,0**	**5.060,0**	**5.205,0**	**5.223,0**
+ Minority/Non Controlling Interest	60,0	14,0	14,0	1,0	1,0	2,0	2,0
Total Equity	**4.907,0**	**4.410,0**	**4.880,0**	**4.766,0**	**5.061,0**	**5.207,0**	**5.225,0**
Total Liabilities & Equity	**139.816,0**	**141.090,0**	**132.619,0**	**128.254,0**	**140.280,0**	**184.887,0**	**202.913,0**
Reference Items							
Accounting Standard	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS
Shares Outstanding	164,0	164,0	164,0	164,0	164,0	164,0	164,0
Number of Treasury Shares	0,0	0,0	0,0	0,0	—	—	—
Pension Obligations	545,0	563,0	572,0	584,0	585,0	1.115,0	1.143,0
Future Minimum Operating Lease Obligation	—	—	264,0	—	84,0	147,0	156,0
Book Value per Share	29,55	26,80	29,67	29,05	30,85	31,74	31,85
Tier 1 Capital Ratio	6,70	6,90	6,60	8,50	8,30	5,50	6,90
Net Debt	28.699,0	25.221,0	12.569,0	10.568,0	30.530,0	50.888,0	48.395,0
Tangible Common Equity Ratio	3,40	3,02	3,55	3,59	3,45	1,48	1,40
Tangible Common Equity to Risk-Weighted A	—	—	—	—	6,92	2,88	3,71
Total Risk-Based Capital Ratio	10,80	10,60	10,80	10,90	10,70	8,10	9,60
Real Estate Loans	10.520,0	10.668,0	11.200,0	17.259,0	19.088,0	45.565,0	50.306,0
Earning Assets	136.881,0	138.372,0	129.661,0	124.719,0	136.468,0	180.094,0	195.102,0
Non-Performing Assets	246,0	475,0	424,0	475,0	612,0	926,0	918,0
Off-Balance Sheet Commitments	13.970,0	12.625,0	14.144,0	1.110,0	18.471,0	23.490,0	25.064,0
Number of Employees	10.430,00	10.230,00	8.700,00	10.006,00	8.185,00	18.572,00	21.474,00

Source: Bloomberg

Income Statement Postbank

Deutsche Postbank AG (DPB GR) - Adjusted Income Statement						
In Millions of EUR except Per Share	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
12 Months Ending	12/31/2001	12/31/2002	12/31/2003	12/31/2004	12/31/2005	12/31/2006
Net Revenue	**2.599,0**	**2.606,0**	**2.668,0**	**2.926,0**	**3.176,0**	**4.522,0**
+ Net Interest Income	**1.605,0**	**1.852,0**	**1.653,0**	**1.559,0**	**1.679,0**	**2.135,0**
+ Total Interest Income	6.776,0	6.458,0	5.610,0	5.263,0	5.354,0	7.631,0
+ Interest Income	*3.677,0*	*3.555,0*	*3.194,0*	*4.964,0*	*4.959,0*	*5.083,0*
+ Investment Income	*3.099,0*	*2.903,0*	*2.416,0*	*299,0*	*395,0*	*2.548,0*
- Total Interest Expense	5.171,0	4.606,0	3.957,0	3.704,0	3.675,0	5.496,0
+ Total Non-Interest Income	**—**	**—**	**—**	**—**	**—**	**—**
+ Trading Securities G/L	154,0	116,0	258,0	500,0	452,0	564,0
+ Commissions & Fees Earned	484,0	517,0	539,0	706,0	801,0	1.623,0
+ Other Operating Income (Losses)	356,0	121,0	218,0	161,0	244,0	200,0
- Provision for Loan Losses	**102,0**	**137,0**	**154,0**	**185,0**	**205,0**	**337,0**
Net Revenue after Provisions	**2.497,0**	**2.469,0**	**2.514,0**	**2.741,0**	**2.971,0**	**4.185,0**
- Total Non-Interest Expense	**2.061,0**	**2.070,0**	**2.015,0**	**2.096,0**	**2.133,0**	**3.245,0**
+ Commissions & Fees Paid	76,0	62,0	72,0	94,0	102,0	216,0
+ Other Operating Expenses	1.985,0	2.008,0	1.943,0	2.002,0	2.031,0	3.029,0
Operating Income (Loss)	**436,0**	**399,0**	**499,0**	**645,0**	**838,0**	**940,0**
- Non-Operating (Income) Loss	**93,0**	**0,0**	**2,0**	**-3,0**	**119,0**	**-1,0**
+ (Income) Loss from Affiliates	—	—	—	-3,0	-1,0	-11,0
+ Other Non-Op (Income) Loss	93,0	0,0	2,0	0,0	120,0	10,0
Pretax Income (Loss), Adjusted	**343,0**	**399,0**	**497,0**	**648,0**	**719,0**	**941,0**
- Abnormal Losses (Gains)	**—**	**—**	**—**	**0,0**	**128,0**	**15,0**
+ Impairment Of Goodwill	—	0,0	0,0	—	—	—
Pretax Income (Loss), GAAP	**343,0**	**399,0**	**497,0**	**648,0**	**719,0**	**941,0**
- Income Tax Expense (Benefit)	**152,0**	**259,0**	**144,0**	**212,0**	**226,0**	**245,0**
Income (Loss) from Cont Ops	**191,0**	**140,0**	**353,0**	**436,0**	**493,0**	**696,0**
- Net Extraordinary Losses (Gains)	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**
Income (Loss) Incl. MI	**191,0**	**140,0**	**353,0**	**436,0**	**493,0**	**696,0**
- Minority Interest	1,0	8,0	1,0	1,0	1,0	1,0
Net Income, GAAP	**190,0**	**132,0**	**352,0**	**435,0**	**492,0**	**695,0**
- Preferred Dividends	—	—	0,0	0,0	0,0	0,0
Net Income Avail to Common, GAAP	**190,0**	**132,0**	**352,0**	**435,0**	**492,0**	**695,0**
Net Income Avail to Common, Adj	**190,0**	**132,0**	**352,0**	**435,0**	**492,0**	**695,0**
Net Extraordinary Losses (Gains)	0,0	0,0	0,0	0,0	0,0	0,0
Basic Weighted Avg Shares	164,0	164,0	164,0	164,0	164,0	164,0
Basic EPS, GAAP	**1,16**	**0,81**	**2,14**	**2,65**	**3,00**	**4,24**
Basic EPS from Cont Ops	**1,16**	**0,81**	**2,14**	**2,65**	**3,00**	**4,24**
Basic EPS from Cont Ops, Adjusted	**1,16**	**0,81**	**2,14**	**2,65**	**4,02**	**4,36**
Diluted Weighted Avg Shares	—	164,0	164,0	164,0	164,0	164,0
Diluted EPS, GAAP	**—**	**0,81**	**2,14**	**2,65**	**3,00**	**4,24**
Diluted EPS from Cont Ops	**—**	**0,81**	**2,14**	**2,65**	**3,00**	**4,24**
Diluted EPS from Cont Ops, Adjusted	**—**	**0,81**	**2,14**	**2,65**	**4,02**	**4,36**
Reference Items						
Accounting Standard	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS
Net Interest Income Less Provisions	1.503,0	1.715,0	1.499,0	1.374,0	1.474,0	1.798,0
Net Revenue - Net of Commissions Paid	2.523,0	2.544,0	2.596,0	2.832,0	3.074,0	4.306,0
Total Revenue	7.770,0	7.212,0	6.625,0	6.630,0	6.851,0	10.018,0
Operating Margin	16,78	15,31	18,70	22,04	26,39	20,79
Pretax Margin	13,20	15,31	18,63	22,15	22,64	20,81
Profit Margin	7,31	5,07	13,19	14,87	15,49	15,37
T12 Net Interest Margin	1,21	1,35	1,23	1,23	1,29	1,35
Sales per Employee	744.966,44	704.985,34	761.494,25	662.602,44	837.018,94	539.414,17
Dividends per Share	—	—	—	1,25	1,25	1,25
Total Cash Common Dividends	—	—	—	205,0	205,0	205,0
Pre-Tax Pre-Provision Profit	538,0	536,0	653,0	830,0	1.043,0	1.277,0
Efficiency Ratio	78,68	78,93	74,85	70,69	66,07	70,34
Actual Loan Losses (Net)	—	—	—	12,0	14,0	13,0
Reinvested Earnings	—	—	—	230,0	287,0	490,0

Source: Bloomberg

Data set RWE AG

Balance Sheet RWE AG

RWE AG (RWE GR) - Standardized Balance Sheet							
In Millions of EUR except Per Share 12 Months Ending	FY 2000 12/31/2000	FY 2001 12/31/2001	FY 2002 12/31/2002	FY 2003 12/31/2003	FY 2004 12/31/2004	FY 2005 12/31/2005	FY 2006 12/31/2006
Total Assets							
+ Cash, Cash Equivalents & STI	10.151,0	14.453,0	10.602,0	11.796,0	12.539,0	11.775,0	19.582,0
+ Cash & Cash Equivalents	2.812,0	3.842,0	2.143,0	2.181,0	1.526,0	1.431,0	2.794,0
+ ST Investments	7.339,0	10.611,0	8.459,0	9.615,0	11.013,0	10.344,0	16.788,0
+ Accounts & Notes Receiv	7.076,0	—	7.737,0	7.472,0	7.419,0	8.325,0	8.876,0
+ Inventories	3.135,0	3.643,0	3.505,0	3.285,0	2.043,0	2.257,0	2.226,0
+ Raw Materials	—	1.176,0	1.306,0	—	1.244,0	1.143,0	1.283,0
+ Work In Process	—	923,0	827,0	—	340,0	306,0	82,0
+ Finished Goods	—	1.266,0	1.110,0	—	386,0	734,0	849,0
+ Other Inventory	—	278,0	262,0	—	73,0	74,0	12,0
+ Other ST Assets	2.105,0	24.171,0	7.795,0	8.069,0	5.963,0	15.421,0	10.772,0
Total Current Assets	**22.467,0**	**42.267,0**	**29.434,0**	**30.622,0**	**27.964,0**	**37.778,0**	**41.456,0**
+ Property, Plant & Equip, Net	17.491,0	32.310,0	33.984,0	36.210,0	34.518,0	36.089,0	26.034,0
+ Property, Plant & Equip	59.006,0	—	88.843,0	91.131,0	88.776,0	90.061,0	76.474,0
- Accumulated Depreciation	41.515,0	—	54.859,0	54.921,0	54.258,0	53.972,0	50.440,0
+ LT Investments & Receivables	8.372,0	8.370,0	5.274,0	3.141,0	3.747,0	3.818,0	3.446,0
+ Other LT Assets	16.659,0	8.502,0	31.581,0	29.169,0	27.141,0	31.773,0	22.519,0
+ Total Intangible Assets	—	8.502,0	18.518,0	—	14.379,0	18.551,0	14.901,0
+ *Goodwill*	*1.130,0*	*7.750,0*	*14.454,0*	*15.658,0*	*14.379,0*	*15.613,0*	*12.318,0*
+ *Other Intangible Assets*	—	*752,0*	*4.064,0*	—	*0,0*	*2.938,0*	*2.583,0*
+ Deferred Tax Assets	—	—	—	—	3.243,0	—	—
+ Investments in Affiliates	7.356,0	4.614,0	4.030,0	3.674,0	2.665,0	2.617,0	2.271,0
+ Misc LT Assets	9.303,0	-4.614,0	9.033,0	25.495,0	6.854,0	10.605,0	5.347,0
Total Noncurrent Assets	**42.522,0**	**49.182,0**	**70.839,0**	**68.520,0**	**65.406,0**	**71.680,0**	**51.999,0**
Total Assets	**64.989,0**	**91.449,0**	**100.273,0**	**99.142,0**	**93.370,0**	**109.458,0**	**93.455,0**
Liabilities & Shareholders' Equity							
+ Payables & Accruals	5.398,0	—	4.968,0	5.019,0	6.066,0	7.497,0	8.148,0
+ Accounts Payable	5.398,0	—	4.968,0	5.019,0	6.066,0	7.497,0	8.148,0
+ ST Debt	479,0	—	5.951,0	7.645,0	4.895,0	5.994,0	3.710,0
+ ST Borrowings	467,0	-19,0	5.874,0	7.574,0	4.834,0	5.973,0	3.695,0
+ ST Capital Leases	12,0	19,0	77,0	71,0	61,0	21,0	15,0
+ Other ST Liabilities	13.672,0	6.206,0	14.821,0	16.086,0	10.895,0	18.545,0	15.084,0
+ Misc ST Liabilities	13.672,0	6.206,0	14.821,0	16.086,0	10.895,0	18.545,0	15.084,0
Total Current Liabilities	**19.549,0**	**6.206,0**	**25.740,0**	**28.750,0**	**21.856,0**	**32.036,0**	**26.942,0**
+ LT Debt	1.333,0	11.408,0	23.935,0	24.145,0	22.488,0	21.458,0	15.672,0
+ LT Borrowings	1.103,0	11.156,0	23.306,0	23.594,0	21.955,0	21.198,0	15.591,0
+ LT Capital Leases	230,0	252,0	629,0	551,0	533,0	260,0	81,0
+ Other LT Liabilities	34.550,0	62.706,0	41.674,0	37.182,0	37.833,0	43.607,0	36.730,0
+ Misc LT Liabilities	34.550,0	62.706,0	41.674,0	37.182,0	37.833,0	43.607,0	36.730,0
Total Noncurrent Liabilities	**35.883,0**	**74.114,0**	**65.609,0**	**61.327,0**	**60.321,0**	**65.065,0**	**52.402,0**
Total Liabilities	**55.432,0**	**80.320,0**	**91.349,0**	**90.077,0**	**82.177,0**	**97.101,0**	**79.344,0**
+ Preferred Equity and Hybrid Capital	—	0,0	0,0	—	0,0	0,0	0,0
+ Share Capital & APIC	3.037,0	—	2.728,0	2.728,0	2.728,0	2.728,0	2.728,0
- Treasury Stock	—	62,0	0,0	0,0	0,0	0,0	0,0
+ Retained Earnings	—	7.730,0	6.429,0	4.856,0	6.290,0	7.714,0	10.557,0
+ Other Equity	3.329,0	62,0	-2.728,0	-571,0	638,0	989,0	154,0
Equity Before Minority Interest	**6.366,0**	**7.730,0**	**6.429,0**	**7.013,0**	**9.656,0**	**11.431,0**	**13.439,0**
+ Minority/Non Controlling Interest	3.191,0	3.399,0	2.495,0	2.052,0	1.537,0	926,0	672,0
Total Equity	**9.557,0**	**11.129,0**	**8.924,0**	**9.065,0**	**11.193,0**	**12.357,0**	**14.111,0**
Total Liabilities & Equity	**64.989,0**	**91.449,0**	**100.273,0**	**99.142,0**	**93.370,0**	**109.458,0**	**93.455,0**
Reference Items							
Accounting Standard	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS
Shares Outstanding	525,0	571,9	564,3	564,3	564,3	564,3	564,3
Number of Treasury Shares	—	7,6	0,0	0,0	0,0	0,0	0,0
Pension Obligations	11.536,0	13.915,0	13.376,0	12.303,0	11.853,0	11.997,0	11.584,0
Future Minimum Operating Lease Obligation	2.710,0	1.429,0	980,0	1.602,0	647,0	556,0	528,0
Capital Leases - Total	242,0	271,0	706,0	622,0	594,0	281,0	96,0
Options Granted During Period	0,0	0,0	0,0	0,0	—	—	392,1
Options Outstanding at Period End	5.956,3	14.896,5	13,6	12,7	—	—	938,1
Net Debt	-8.339,0	-3.045,0	19.284,0	19.994,0	14.844,0	15.677,0	-200,0
Net Debt to Equity	-87,26	-27,36	216,09	220,56	132,62	126,87	-1,42
Tangible Common Equity Ratio	—	-0,93	-14,79	—	-5,98	-7,83	-1,86
Current Ratio	1,15	6,81	1,14	1,07	1,28	1,18	1,54
Number of Employees	152.132,00	162.340,00	132.607,00	127.028,00	97.777,00	85.928,00	68.534,00

Source: Bloomberg

Income Statement RWE AG

RWE AG (RWE GR) - Adjusted Income Statement						
In Millions of EUR except Per Share	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
12 Months Ending	12/31/2001	12/31/2002	12/31/2003	12/31/2004	12/31/2005	12/31/2006
Revenue	**50.366,0**	**43.487,0**	**37.169,0**	**40.996,0**	**38.186,0**	**41.169,0**
- Cost of Revenue	6.396,0	—	—	—	—	—
Gross Profit	**43.970,0**	**—**	**—**	**—**	**—**	**—**
+ Other Operating Income	—	2.172,0	1.402,0	3.260,0	1.022,0	880,0
- Operating Expenses	40.644,0	41.019,0	33.513,0	38.682,0	34.188,0	37.786,0
+ Selling, General & Admin	—	203,0	—	—	—	—
+ *Selling & Marketing*	—	*203,0*	—	—	—	—
+ Prov For Doubtful Accts	—	—	—	-1.508,0	—	—
Operating Income (Loss)	**3.326,0**	**4.640,0**	**5.058,0**	**5.574,0**	**5.020,0**	**4.263,0**
+ Interest Expense, Net	—	644,0	—	—	742,0	509,0
+ *Interest Expense*	—	*1.949,0*	*2.247,0*	—	*2.048,0*	*2.710,0*
- *Interest Income*	*572,0*	*1.305,0*	*1.116,0*	—	*1.306,0*	*2.201,0*
+ Foreign Exch (Gain) Loss	—	-57,0	-74,0	—	—	—
+ (Income) Loss from Affiliates	-544,0	-494,0	-73,0	-298,0	-529,0	-409,0
Pretax Income (Loss), Adjusted	**2.194,0**	**2.722,0**	**3.108,0**	**3.935,0**	**3.156,0**	**3.537,0**
- Abnormal Losses (Gains)	—	—	—	58,0	934,0	-191,0
+ Impairment of Goodwill	—	59,0	68,0	533,0	759,0	—
Pretax Income (Loss), GAAP	**2.194,0**	**2.722,0**	**3.108,0**	**3.935,0**	**3.156,0**	**3.537,0**
- Income Tax Expense (Benefit)	450,0	1.367,0	1.187,0	1.521,0	1.086,0	966,0
Income (Loss) from Cont Ops	**1.744,0**	**1.355,0**	**1.921,0**	**2.414,0**	**2.070,0**	**2.571,0**
- Net Extraordinary Losses (Gains)	0,0	0,0	985,0	—	-385,0	-1.442,0
Income (Loss) Incl. MI	**1.744,0**	**1.355,0**	**936,0**	**2.414,0**	**2.455,0**	**4.013,0**
- Minority Interest	394,0	305,0	-17,0	277,0	224,0	166,0
Net Income, GAAP	**1.350,0**	**1.050,0**	**953,0**	**2.137,0**	**2.231,0**	**3.847,0**
- Preferred Dividends	0,0	0,0	—	0,0	0,0	0,0
Net Income Avail to Common, GAAP	**1.350,0**	**1.050,0**	**953,0**	**2.137,0**	**2.231,0**	**3.847,0**
Net Income Avail to Common, Adj	**1.350,0**	**1.050,0**	**953,0**	**2.137,0**	**2.231,0**	**3.847,0**
Net Abnormal Losses (Gains)	—	—	—	58,0	—	—
Net Extraordinary Losses (Gains)	0,0	0,0	985,0	—	-385,0	-1.442,0
Basic Weighted Avg Shares	544,7	564,2	564,2	564,2	564,2	564,2
Basic EPS, GAAP	**2,48**	**1,86**	**1,68**	**3,79**	**3,96**	**6,82**
Basic EPS from Cont Ops	**2,48**	**1,86**	**3,43**	**3,79**	**3,27**	**4,27**
Basic EPS from Cont Ops, Adjusted	**2,48**	**1,86**	**—**	**3,89**	**4,35**	**3,93**
Diluted Weighted Avg Shares	544,7	564,2	564,2	564,2	564,2	564,2
Diluted EPS, GAAP	**2,48**	**1,86**	**1,68**	**3,79**	**3,96**	**6,82**
Diluted EPS from Cont Ops	**2,48**	**1,86**	**—**	**3,79**	**3,27**	**4,27**
Diluted EPS from Cont Ops, Adjusted	**2,48**	**1,86**	**—**	**3,89**	**4,35**	**3,93**
Reference Items						
Accounting Standard	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS
EBITDA	6.839,0	8.867,0	9.281,0	9.354,0	8.056,0	7.288,0
EBITDA Margin (T12M)	13,58	20,39	24,97	22,82	21,10	17,70
EBITA	2.428,0	5.929,0	6.382,0	6.751,0	5.633,0	4.875,0
EBIT	3.326,0	4.640,0	5.058,0	5.574,0	5.020,0	4.263,0
Gross Margin	87,30	—	—	—	—	—
Operating Margin	6,60	10,67	13,61	13,60	13,15	10,35
Profit Margin	2,68	2,41	2,56	5,21	5,84	9,34
Sales per Employee	310.250,09	327.938,95	292.604,78	—	444.395,31	600.709,14
Dividends per Share	—	1,00	1,25	1,50	1,74	3,49
Total Cash Common Dividends	—	619,0	703,0	843,6	984,0	1.968,0
Personnel Expenses	13.513,0	7.527,0	7.530,0	6.122,0	4.969,0	4.620,0
Depreciation Expense	4.411,0	2.938,0	2.899,0	2.603,0	2.423,0	2.413,0
Rental Expense	—	—	—	—	249,0	103,0

Source: Bloomberg

Data set E. ON AG

Balance Sheet E. ON AG

E.ON SE (EOAN GR) - Standardized Balance Sheet							
In Millions of EUR except Per Share 12 Months Ending	FY 2008 12/31/2008	FY 2009 12/31/2009	FY 2010 12/31/2010	FY 2011 12/31/2011	FY 2012 12/31/2012	FY 2013 12/31/2013	FY 2014 12/31/2014
Total Assets							
+ Cash, Cash Equivalents & STI	7.845,0	7.619,0	9.452,0	8.642,0	8.091,0	8.734,0	6.336,0
+ Cash & Cash Equivalents	3.671,0	4.210,0	6.143,0	3.852,0	2.816,0	4.527,0	3.191,0
+ ST Investments	4.174,0	3.409,0	3.309,0	4.790,0	5.275,0	4.207,0	3.145,0
+ Accounts & Notes Receiv	14.468,0	11.619,0	15.881,0	18.143,0	16.168,0	14.352,0	11.843,0
+ Accounts Receivable, Net	14.416,0	11.577,0	15.819,0	18.065,0	16.104,0	14.257,0	11.800,0
+ Notes Receivable, Net	52,0	42,0	62,0	78,0	64,0	95,0	43,0
+ Inventories	4.774,0	4.518,0	4.064,0	4.828,0	4.734,0	4.147,0	3.356,0
+ Raw Materials	2.614,0	2.258,0	2.163,0	2.160,0	2.156,0	2.134,0	1.821,0
+ Work In Process	—	0,0	0,0	0,0	0,0	0,0	0,0
+ Finished Goods	94,0	150,0	287,0	180,0	189,0	165,0	103,0
+ Other Inventory	2.066,0	2.110,0	1.614,0	2.488,0	2.389,0	1.848,0	1.432,0
+ Other ST Assets	21.020,0	15.812,0	16.827,0	19.038,0	14.870,0	9.517,0	21.090,0
+ Derivative & Hedging Assets	—	7.556,0	7.567,0	9.863,0	4.489,0	4.154,0	10.199,0
+ Assets Held-for-Sale	—	2.273,0	2.043,0	620,0	5.261,0	1.031,0	5.770,0
+ Taxes Receivable	—	1.925,0	2.678,0	4.680,0	910,0	1.030,0	1.745,0
+ Misc ST Assets	—	4.058,0	4.539,0	3.875,0	4.210,0	3.302,0	3.376,0
Total Current Assets	**48.107,0**	**39.568,0**	**46.224,0**	**50.651,0**	**43.863,0**	**36.750,0**	**42.625,0**
+ Property, Plant & Equip, Net	56.480,0	60.327,0	60.870,0	55.869,0	54.173,0	50.083,0	41.273,0
+ Property, Plant & Equip	114.956,0	120.563,0	123.498,0	117.999,0	113.259,0	106.965,0	96.703,0
- Accumulated Depreciation	58.476,0	60.236,0	62.628,0	62.130,0	59.086,0	56.882,0	55.430,0
+ LT Investments & Receivables	11.274,0	6.322,0	7.260,0	8.523,0	8.438,0	7.994,0	8.314,0
+ LT Marketable Securities	5.017,0	3.670,0	3.903,0	4.904,0	4.746,0	4.444,0	4.781,0
+ LT Receivables	—	2.652,0	3.357,0	3.619,0	3.692,0	3.550,0	3.533,0
+ Other LT Assets	40.963,0	46.397,0	38.527,0	37.829,0	33.952,0	37.503,0	33.478,0
+ Total Intangible Assets	24.007,0	25.566,0	22.658,0	21.455,0	20.309,0	19.314,0	16.694,0
+ *Goodwill*	*17.311,0*	*16.901,0*	*14.588,0*	*14.083,0*	*13.440,0*	*12.666,0*	*11.812,0*
+ *Other Intangible Assets*	*6.696,0*	*8.665,0*	*8.070,0*	*7.372,0*	*6.869,0*	*6.648,0*	*4.882,0*
+ Deferred Tax Assets	2.248,0	4.640,0	3.303,0	5.299,0	5.564,0	7.497,0	6.255,0
+ Derivative & Hedging Assets	—	2.365,0	3.068,0	1.901,0	1.944,0	2.545,0	3.517,0
+ Investments in Affiliates	8.931,0	12.803,0	8.544,0	8.233,0	5.679,0	7.618,0	6.582,0
+ Misc LT Assets	5.777,0	1.023,0	954,0	941,0	456,0	529,0	430,0
Total Noncurrent Assets	**108.717,0**	**113.046,0**	**106.657,0**	**102.221,0**	**96.563,0**	**95.580,0**	**83.065,0**
Total Assets	**156.824,0**	**152.614,0**	**152.881,0**	**152.872,0**	**140.426,0**	**132.330,0**	**125.690,0**
Liabilities & Shareholders' Equity							
+ Payables & Accruals	0,0	6.278,0	7.594,0	9.296,0	6.850,0	4.208,0	2.982,0
+ Accounts Payable	—	4.635,0	5.016,0	4.871,0	5.459,0	2.485,0	2.185,0
+ Accrued Taxes	—	1.643,0	2.578,0	4.425,0	1.391,0	1.723,0	797,0
+ Other Payables & Accruals	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ ST Debt	16.022,0	7.120,0	3.611,0	5.885,0	4.007,0	4.673,0	3.883,0
+ ST Borrowings	—	7.076,0	3.590,0	5.823,0	3.945,0	4.630,0	3.839,0
+ ST Capital Leases	—	44,0	21,0	62,0	62,0	43,0	44,0
+ Other ST Liabilities	0,0	24.455,0	26.511,0	30.949,0	25.722,0	23.632,0	28.777,0
+ Deferred Revenue	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ Derivatives & Hedging	—	7.307,0	7.214,0	9.140,0	5.567,0	4.337,0	9.908,0
+ Misc ST Liabilities	35.933,0	17.148,0	19.297,0	21.809,0	20.155,0	19.295,0	18.869,0
Total Current Liabilities	**51.955,0**	**37.853,0**	**37.716,0**	**46.130,0**	**36.579,0**	**32.513,0**	**35.642,0**
+ LT Debt	25.036,0	30.657,0	28.880,0	24.029,0	21.937,0	18.051,0	15.784,0
+ LT Borrowings	—	30.456,0	28.453,0	23.313,0	21.050,0	17.181,0	15.015,0
+ LT Capital Leases	—	201,0	427,0	716,0	887,0	870,0	769,0
+ Other LT Liabilities	41.389,0	40.118,0	40.700,0	43.100,0	43.090,0	45.128,0	47.551,0
+ Pension Liabilities	—	2.884,0	3.250,0	3.245,0	4.945,0	3.418,0	5.574,0
+ Deferred Revenue	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ Deferred Tax Liabilities	6.277,0	7.529,0	7.157,0	6.786,0	6.781,0	7.904,0	5.720,0
+ Derivatives & Hedging	—	2.885,0	1.647,0	2.417,0	1.739,0	2.445,0	3.868,0
+ Misc LT Liabilities	35.112,0	26.820,0	28.646,0	30.652,0	29.625,0	31.361,0	32.389,0

Continuation of E.ON balance sheet:

E.ON SE (EOAN GR) - Standardized Balance Sheet							
In Millions of EUR except Per Share 12 Months Ending	FY 2008 12/31/2008	FY 2009 12/31/2009	FY 2010 12/31/2010	FY 2011 12/31/2011	FY 2012 12/31/2012	FY 2013 12/31/2013	FY 2014 12/31/2014
Total Noncurrent Liabilities	**66.425,0**	**70.775,0**	**69.580,0**	**67.129,0**	**65.027,0**	**63.179,0**	**63.335,0**
Total Liabilities	**118.380,0**	**108.628,0**	**107.296,0**	**113.259,0**	**101.606,0**	**95.692,0**	**98.977,0**
+ Preferred Equity and Hybrid Capital	0,0	0,0	0,0	0,0	0,0	0,0	0,0
+ Share Capital & APIC	15.742,0	15.748,0	15.748,0	15.748,0	15.741,0	15.734,0	15.078,0
+ Common Stock	—	2.001,0	2.001,0	2.001,0	2.001,0	2.001,0	2.001,0
+ Additional Paid in Capital	—	13.747,0	13.747,0	13.747,0	13.740,0	13.733,0	13.077,0
- Treasury Stock	3.549,0	3.530,0	3.531,0	3.530,0	3.505,0	3.484,0	2.502,0
+ Retained Earnings	22.181,0	26.609,0	29.026,0	23.796,0	22.868,0	23.306,0	16.842,0
+ Other Equity	110,0	1.552,0	410,0	-277,0	-146,0	-1.833,0	-4.833,0
Equity Before Minority Interest	**34.484,0**	**40.379,0**	**41.653,0**	**35.737,0**	**34.958,0**	**33.723,0**	**24.585,0**
+ Minority/Non Controlling Interest	3.960,0	3.607,0	3.932,0	3.876,0	3.862,0	2.915,0	2.128,0
Total Equity	**38.444,0**	**43.986,0**	**45.585,0**	**39.613,0**	**38.820,0**	**36.638,0**	**26.713,0**
Total Liabilities & Equity	**156.824,0**	**152.614,0**	**152.881,0**	**152.872,0**	**140.426,0**	**132.330,0**	**125.690,0**
Reference Items							
Accounting Standard	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS
Shares Outstanding	1.904,5	1.905,5	1.905,4	1.905,5	1.906,8	1.907,8	1.932,7
Number of Treasury Shares	96,5	95,5	95,6	95,5	94,2	93,2	68,3
Pension Obligations	3.559,0	2.884,0	3.250,0	3.245,0	4.945,0	3.418,0	5.574,0
Future Minimum Operating Lease Obligation	1.378,0	1.228,0	1.762,0	2.175,0	1.711,0	1.269,0	1.555,0
Capital Leases - Total	247,0	245,0	448,0	778,0	949,0	913,0	813,0
Options Granted During Period	0,3	1,4	1,4	—	—	—	—
Options Outstanding at Period End	0,8	1,7	2,5	—	—	—	—
Net Debt	28.196,0	26.488,0	19.136,0	16.368,0	13.107,0	9.546,0	8.550,0
Net Debt to Equity	73,34	60,22	41,98	41,32	33,76	26,05	32,01
Tangible Common Equity Ratio	7,89	11,66	14,59	10,87	12,20	12,75	7,24
Current Ratio	0,93	1,05	1,23	1,10	1,20	1,13	1,20
Cash Conversion Cycle	—	—	51,24	53,26	46,30	48,08	47,38
Number of Employees	93.538,00	88.227,00	85.105,00	78.889,00	72.083,00	61.327,00	58.811,00

Source: Bloomberg

Income Statement E. ON AG

E.ON SE (EOAN GR) - Adjusted Income Statement							
In Millions of EUR except Per Share	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
12 Months Ending	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013	12/31/2014
Revenue	**86.753,0**	**79.974,0**	**92.863,0**	**112.954,0**	**132.093,0**	**119.688,0**	**113.095,0**
+ Sales & Services Revenue	—	81.875,0	94.812,0	115.046,0	133.997,0	121.452,0	114.592,0
Growth (YoY)	—	—	*15,8*	*21,3*	*16,5*	*-9,4*	*-5,6*
+ Other Revenue	—	-1.901,0	-1.949,0	-2.092,0	-1.904,0	-1.764,0	-1.497,0
Gross Profit	**—**	**—**	**—**	**—**	**—**	**—**	**—**
+ Other Operating Income	15.454,0	19.635,0	12.483,0	12.237,0	9.837,0	3.885,0	9.943,0
- Operating Expenses	96.867,0	95.663,0	97.829,0	123.017,0	136.708,0	119.967,0	119.097,0
+ *Selling & Marketing*	—	—	*284,0*	—	—	—	—
+ Research & Development	—	62,0	61,0	59,0	56,0	42,0	30,0
+ Depreciation & Amortization	—	3.663,0	3.767,0	3.712,0	5.078,0	3.561,0	3.580,0
+ Other Operating Expense	—	91.938,0	93.717,0	119.246,0	131.574,0	116.364,0	115.487,0
Operating Income (Loss)	**5.340,0**	**3.946,0**	**7.517,0**	**2.174,0**	**5.222,0**	**3.606,0**	**3.941,0**
- Non-Operating (Income) Loss	—	238,0	-1.679,0	3.702,0	774,0	863,0	1.456,0
+ Interest Expense, Net	1.893,0	2.273,0	2.303,0	2.094,0	1.420,0	1.992,0	1.811,0
+ *Interest Expense*	*3.052,0*	*2.873,0*	*2.956,0*	*2.810,0*	*2.611,0*	*2.572,0*	*2.692,0*
- *Interest Income*	*1.159,0*	*600,0*	*653,0*	*716,0*	*1.191,0*	*580,0*	*881,0*
+ Foreign Exch (Gain) Loss	0,0	246,0	-241,0	734,0	-251,0	-10,0	500,0
+ (Income) Loss from Affiliates	-912,0	-815,0	-927,0	-594,0	-816,0	-258,0	-243,0
+ Other Non-Op (Income) Loss	—	-1.466,0	-2.814,0	1.468,0	421,0	-861,0	-612,0
Pretax Income (Loss), Adjusted	**2.583,0**	**3.708,0**	**9.196,0**	**-1.528,0**	**4.448,0**	**2.743,0**	**2.485,0**
- Abnormal Losses (Gains)	4.193,0	-7.792,0	133,0	1.383,0	1.174,0	-336,0	4.883,0
+ Merger/Acquisition Expense	—	—	200,0	—	—	—	—
+ Abnormal Derivatives	—	1.100,0	2.700,0	-1.805,0	-500,0	777,0	540,0
+ Disposal of Assets	—	-151,0	-54,0	-132,0	-114,0	-127,0	-111,0
+ Early Extinguishment of Debt	—	—	65,0	34,0	—	—	—
+ Asset Write-Down	114,0	129,0	1.111,0	2.975,0	1.301,0	1.841,0	5.239,0
+ Impairment of Goodwill	3.468,0	—	1.067,0	160,0	328,0	138,0	128,0
+ Impairment of Intangibles	—	170,0	596,0	356,0	240,0	378,0	-50,0
+ Restructuring	—	443,0	621,0	1.387,0	618,0	550,0	496,0
+ Sale of Investments	—	-5.034,0	-3.349,0	-674,0	-456,0	-1.973,0	-842,0
+ Unrealized Investments	—	353,0	48,0	188,0	79,0	84,0	72,0
+ Other Abnormal Items	—	-4.802,0	-2.872,0	-1.106,0	-322,0	-2.004,0	-589,0
Pretax Income (Loss), GAAP	**2.583,0**	**11.500,0**	**9.063,0**	**-2.911,0**	**3.274,0**	**3.079,0**	**-2.398,0**
- Income Tax Expense (Benefit)	834,0	2.858,0	1.946,0	-1.036,0	698,0	718,0	570,0
+ Current Income Tax	1.919,0	2.009,0	1.681,0	1.004,0	-191,0	1.397,0	-46,0
+ Deferred Income Tax	-1.085,0	849,0	265,0	-2.040,0	889,0	-679,0	616,0
Income (Loss) from Cont Ops	**1.749,0**	**8.642,0**	**7.117,0**	**-1.875,0**	**2.576,0**	**2.361,0**	**-2.968,0**
- Net Extraordinary Losses (Gains)	128,0	-27,0	836,0	-14,0	-37,0	-98,0	162,0
+ Discontinued Operations	—	-27,0	836,0	-14,0	-37,0	-98,0	162,0
+ XO & Accounting Changes	—	0,0	0,0	0,0	0,0	0,0	0,0
Income (Loss) Incl. MI	**1.621,0**	**8.669,0**	**6.281,0**	**-1.861,0**	**2.613,0**	**2.459,0**	**-3.130,0**
- Minority Interest	338,0	249,0	428,0	358,0	424,0	368,0	30,0
Net Income, GAAP	**1.283,0**	**8.420,0**	**5.853,0**	**-2.219,0**	**2.189,0**	**2.091,0**	**-3.160,0**
- Preferred Dividends	0,0	0,0	0,0	0,0	0,0	0,0	0,0
- Other Adjustments	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net Income Avail to Common, GAAP	**1.283,0**	**8.420,0**	**5.853,0**	**-2.219,0**	**2.189,0**	**2.091,0**	**-3.160,0**
Net Income Avail to Common, Adj	**1.283,0**	**2.895,0**	**7.096,7**	**-1.209,2**	**3.076,6**	**1.797,1**	**478,5**
Net Abnormal Losses (Gains)	2.839,2	-5.498,0	407,7	1.023,8	924,6	-195,9	3.476,5
Net Extraordinary Losses (Gains)	128,0	-27,0	836,0	-14,0	-37,0	-98,0	162,0
Basic Weighted Avg Shares	1.862,0	1.905,0	1.905,0	1.905,0	1.906,0	1.907,0	1.923,0
Basic EPS, GAAP	**0,69**	**4,42**	**3,07**	**-1,16**	**1,15**	**1,10**	**-1,64**
Basic EPS from Cont Ops	**0,76**	**4,41**	**3,51**	**-1,17**	**1,13**	**1,05**	**-1,56**
Basic EPS from Cont Ops, Adjusted	**2,28**	**1,52**	**3,73**	**-0,63**	**1,61**	**0,94**	**0,25**
Diluted Weighted Avg Shares	1.862,0	1.905,0	1.905,0	1.905,0	1.906,0	1.907,0	1.923,0
Diluted EPS, GAAP	**0,69**	**4,42**	**3,07**	**-1,16**	**1,15**	**1,10**	**-1,64**
Diluted EPS from Cont Ops	**0,76**	**4,41**	**3,51**	**-1,17**	**1,13**	**1,05**	**-1,56**
Diluted EPS from Cont Ops, Adjusted	**2,28**	**1,52**	**3,73**	**-0,63**	**1,61**	**0,94**	**0,25**

Continuation of E.ON balance sheet:

E.ON SE (EOAN GR) - Adjusted Income Statement							
In Millions of EUR except Per Share 12 Months Ending	FY 2008 12/31/2008	FY 2009 12/31/2009	FY 2010 12/31/2010	FY 2011 12/31/2011	FY 2012 12/31/2012	FY 2013 12/31/2013	FY 2014 12/31/2014
Reference Items							
Accounting Standard	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS	IAS/IFRS
EBITDA	12.192,0	7.489,0	13.974,0	5.668,0	10.300,0	8.811,0	12.664,0
EBITDA Margin (T12M)	14,05	9,36	15,05	5,02	7,80	7,36	11,20
EBITA	9.131,0	4.278,0	10.696,0	2.407,0	7.178,0	5.638,0	9.434,0
EBIT	5.340,0	3.946,0	7.517,0	2.174,0	5.222,0	3.606,0	3.941,0
Gross Margin	—	—	—	—	—	—	—
Operating Margin	6,16	4,93	8,09	1,92	3,95	3,01	3,48
Profit Margin	1,48	3,62	7,64	-1,07	2,33	1,50	0,42
Sales per Employee	927.462,64	906.457,21	1.091.157,98	1.431.809,25	1.832.512,52	1.951.636,31	1.923.024,60
Dividends per Share	1,50	1,50	1,50	1,00	1,10	0,60	0,50
Total Cash Common Dividends	2.857,0	2.858,0	2.858,0	1.905,0	2.097,4	1.145,0	966,0
Capitalized Interest Expense	—	280,0	316,0	312,0	308,0	200,0	162,0
Personnel Expenses	5.130,0	5.158,0	5.281,0	5.947,0	5.166,0	4.604,0	4.147,0
Depreciation Expense	3.061,0	3.211,0	3.278,0	3.261,0	3.122,0	3.173,0	3.230,0
Rental Expense	232,0	230,0	263,0	273,0	243,0	254,0	210,0

Source: Bloomberg

Honourable Declaration

I certify that:

(a) the thesis being submitted for examination is my own account of my own research
(b) my research has been conducted ethically
(c) the data and results presented are the genuine data and results actually obtained by me during the conduct of the research
(d) where I have drawn on the work, ideas and results of others this has been appropriately acknowledged in the thesis
(e) where any collaboration has taken place with other researchers, I have clearly stated in the thesis my own personal share in the investigation
(f) the thesis has not been presented to any other examination committee before
(g) the thesis has not been published before.

Ummendorf, September 12th, 2018 _____

Signature